=> FILE REG
FILE 'REGISTRY' ENTERED AT 16:15:59 ON 13 MAR 2007
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STRUCTURE FILE UPDATES: 12 MAR 2007 HIGHEST RN 926069-79-6
DICTIONARY FILE UPDATES: 12 MAR 2007 HIGHEST RN 926069-79-6

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH December 2, 2006

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http://www.cas.org/ONLINE/UG/regprops.html

=> FILE HCAPL
FILE 'HCAPLUS' ENTERED AT 16:16:04 ON 13 MAR 2007
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 13 Mar 2007 VOL 146 ISS 12
FILE LAST UPDATED: 12 Mar 2007 (20070312/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> D QUE L66
L34 STR

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                Ak~Cb~N~Cb~Ak
               @12 13  14  15 @16


Cb~N~Cb        N~N#C~G1~C#N~N
@8  9 @10      1  2  3  4  5  6  7


               Hy @11


               Ak~N~Cb
              @17 18 @19

VAR G1=11/8-3 10-5/12-3 16-5/17-3 19-5
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
GGCAT   IS PCY  UNS  AT  11
DEFAULT ECLEVEL IS LIMITED
ECOUNT  IS M1 N  AT  11

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  19

STEREO ATTRIBUTES: NONE
L36          606 SEA FILE=REGISTRY SSS FUL L34
L42              STR
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606 structures from the query

Subset search

56 structures

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                 Ak~Cb~N~Cb~Ak
                @12 13  14  15 @16


Hy 20  Cb~N~Cb   N~N#C~G1~C#N~N
       @8  9 @10 1  2  3  4  5  6  7


               Hy @11


               Ak~N~Cb
              @17 18 @19
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VAR G1=11/8-3 10-5/12-3 16-5/17-3 19-5
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CONNECT IS M1 RC AT 21
DEFAULT MLEVEL IS ATOM
GGCAT IS PCY UNS AT 11
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS M1 N AT 11

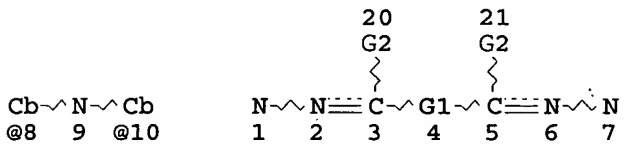
GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 21

STEREO ATTRIBUTES: NONE
L44 43 SEA FILE=REGISTRY ABB=ON L36 AND PMS/CI
L46 56 SEA FILE=REGISTRY SUB=L36 SSS FUL L42
L54 STR

polymers

Ak~Cb~N~Cb~Ak
@12 13 14 15 @16

Subset
403 structures



Hy @11

Ak~N~Cb
@17 18 @19

VAR G1=11/8-3 10-5/12-3 16-5/17-3 19-5
VAR G2=H/AK/CY
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
GGCAT IS PCY UNS AT 11
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS M1 N AT 11

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 21

STEREO ATTRIBUTES: NONE
L58 403 SEA FILE=REGISTRY SUB=L36 SSS FUL L54
L59 48 SEA FILE=REGISTRY ABB=ON L58 AND (L46 OR L44)
L60 157 SEA FILE=HCAPLUS ABB=ON L58
L61 94 SEA FILE=HCAPLUS ABB=ON L60(L)PREP/RL
L62 29 SEA FILE=HCAPLUS ABB=ON L61 AND CHARG?
L64 21 SEA FILE=HCAPLUS ABB=ON L59(L)PREP/RL
L65 41 SEA FILE=HCAPLUS ABB=ON L64 OR L62
L66 25 SEA FILE=HCAPLUS ABB=ON L65 AND (1840-2003)/PRY,AY,PY

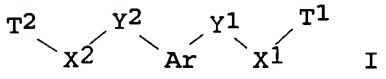
limited to priority of 2003 or earlier

=> D L66 BIB ABS IND HITSTR 1-25

L66 ANSWER 1 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2005:582538 HCAPLUS
DN 143:106305
TI Organophotoreceptor with **charge** transport material having a thiiranyl group
IN Tokarski, Zbigniew; Montrimas, Edmundas; Jubran, Nusrallah; Paliulis, Osvaldas; Gaidelis, Valentas; Getautis, Vytautas
PA Samsung Electronics Co., Ltd., S. Korea
SO Eur. Pat. Appl., 33 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 1550913	A1	20050706	EP 2004-257403	20041130 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR, IS, YU				
US 2005147904	A1	20050707	US 2003-749178	20031230 <--
US 7014968	B2	20060321		
CN 1637624	A	20050713	CN 2004-10098240	20041130 <--
JP 2005196205	A	20050721	JP 2005-292	20050104 <--
PRAI US 2003-749178	A	20031230 <--		

OS MARPAT 143:106305
GI



I

AB The present invention provides organo photoreceptors comprising a photoconductive element comprising: (a) a **charge** transport material having the formula I (Y1 and Y2 = a bond, -CR1=N-NR2-, or -CR3=N-N=CR4-; R1-4 = H, alkyl group, alkenyl group, heterocyclic group, aromatic group; X1 and X2 = linking group; T1 and T2 = thiiranyl group, H, alkyl group, alkenyl group, aromatic group with the proviso that at least one of T1 and T2 is a thiiranyl group; and Ar comprises an aromatic group with the proviso that when both Y1 and Y2 are a bond and one of T1 and T2 is not a thiiranyl group, Ar comprises a bis[(N,N-disubstituted)amino]aromatic group or a bicarbazole group); and (b) a **charge** generating compound Corresponding electrophotog. apparatuses and imaging methods (processes) are described, as are corresponding **charge** transport materials.
IC ICM G03G005-06
ICS C07D331-02; C07D409-12; C07D409-14; C07D417-12
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST electrophotog organo photoreceptor **charge** transport material thiiranyl
IT Electrophotographic photoconductors (photoreceptors)
(organo photoreceptor with **charge** transport material having a thiiranyl group)

IT 857058-35-6P 857058-36-7P 857058-37-8P 857058-38-9P
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(**charge** transport material having thiiranyl group for organo photoreceptor)

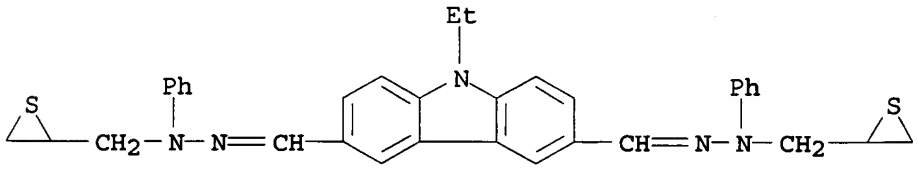
IT 857058-39-0P 857058-40-3P 857058-41-4P 857058-42-5P
857058-43-6P 857058-44-7P
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(**charge** transport material having thiiranyl group for organo photoreceptor)

IT 14052-65-4P, 4,4'-Dihydrazinodiphenyl sulfone 188715-94-8P, 9-Ethyl-3-carbazolecarboxaldehyde N-2,3-epoxypropyl-N-phenylhydrazone 188715-96-0P, 4-(Diethylaminobenzaldehyde N-2,3-epoxypropyl-N-phenylhydrazone 634607-40-2P, 4-(Diphenylamino)benzaldehyde N-2,3-epoxypropyl-N-phenylhydrazone 851308-72-0P 857058-32-3P 857058-33-4P 857058-34-5P
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of **charge** transport material having thiiranyl group for organo photoreceptor)

IT 80-07-9, 4,4'-Dichlorodiphenyl sulfone 106-89-8, Epichlorohydrin, reactions 1762-95-4, Ammonium thiocyanate 3101-58-4 4181-05-9, 4-(Diphenylamino)benzaldehyde 7570-45-8 7803-57-8 52131-82-5, 9-(2,3-Epoxy-propylcarbazole 87755-85-9 117346-00-6 857058-31-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of **charge** transport material having thiiranyl group for organo photoreceptor)

IT **857058-43-6P**
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(**charge** transport material having thiiranyl group for organo photoreceptor)

RN 857058-43-6 HCAPLUS
CN 9H-Carbazole-3,6-dicarboxaldehyde, 9-ethyl-, bis[phenyl(thiiranylmethyl)hydrazone] (9CI) (CA INDEX NAME)



RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L66 ANSWER 2 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2005:204070 HCAPLUS
DN 143:77952
TI Method for preparing multi-hydrazone-type **charge** transfer materials and applications thereof
IN Sun, Yali; Yang, Lianming; Jiang, Kejian; Wang, Yanqiao
PA Institute of Chemistry, Chinese Academy of Sciences, Peop. Rep. China
SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 11 pp.
CODEN: CNXXEV
DT Patent
LA Chinese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CN 1453266	A	20031105	CN 2002-118454	20020424 <--
PRAI	CN 2002-118454		20020424 <--		

OS CASREACT 143:77952

AB A method comprises nitrosifying organic amine with NaNO2/concentrated HCl in ethanol at 0°-5° for 0.5-1.5 h to obtain organic nitroso compds., reducing with Zn powder/glacial acetic acid in ethanol at 10°-40° to obtain hydrazine derivs., and condensing with aldehydes in ethanol at 10°-60° for 0.5-8 h. Thus, diphenylamine was subjected to nitrosation, reduced to a hydrazine, and condensed with triphenylaminedicarboxaldehyde to give a dihydrazone.

IC ICM C07C251-72
ICS C07C249-16

CC 25-15 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
Section cross-reference(s): 52, 76

ST multi hydrazone **charge** transfer material; phenylaminedicarboxaldehyde phenylamine hydrazone **charge** transfer material

IT Amines, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(aromatic; preparation and application of multi-hydrazone-type **charge** transfer materials)

IT Electron transfer
Nitrosation
Photoconductors
Solar cells
(preparation and application of multi-hydrazone-type **charge** transfer materials)

IT Hydrazones
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation and application of multi-hydrazone-type **charge** transfer materials)

IT Aldehydes, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation and application of multi-hydrazone-type **charge** transfer materials)

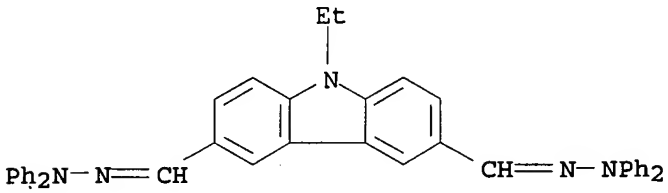
IT **76344-23-5P 87755-91-7P 95640-40-7P**
122366-51-2P 122366-54-5P 122366-55-6P
673456-21-8P 685129-61-7P 685129-63-9P
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(preparation and application of multi-hydrazone-type **charge** transfer materials)

IT 90-30-2, N-Phenyl-1-naphthalenamine 100-61-8, Methylaniline, reactions
122-39-4, Diphenylamine, reactions 135-88-6, N-Phenyl-2-naphthalenamine
53566-95-3 70207-46-4 119001-43-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation and application of multi-hydrazone-type **charge** transfer materials)

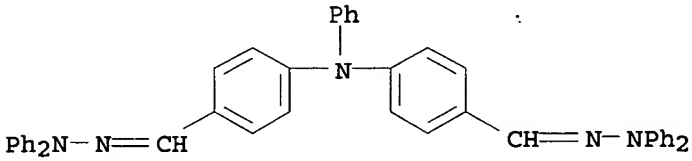
IT **76344-23-5P 87755-91-7P 95640-40-7P**
122366-51-2P 122366-54-5P 122366-55-6P
673456-21-8P 685129-61-7P 685129-63-9P
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(preparation and application of multi-hydrazone-type **charge** transfer materials)

RN 76344-23-5 HCAPLUS

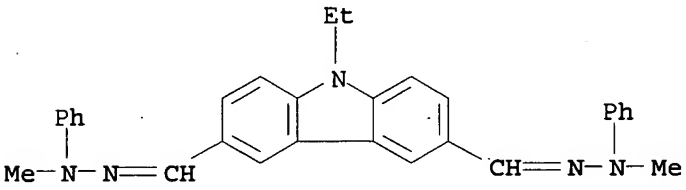
CN 9H-Carbazole-3,6-dicarboxaldehyde, 9-ethyl-, bis(diphenylhydrazone) (9CI) (CA INDEX NAME)



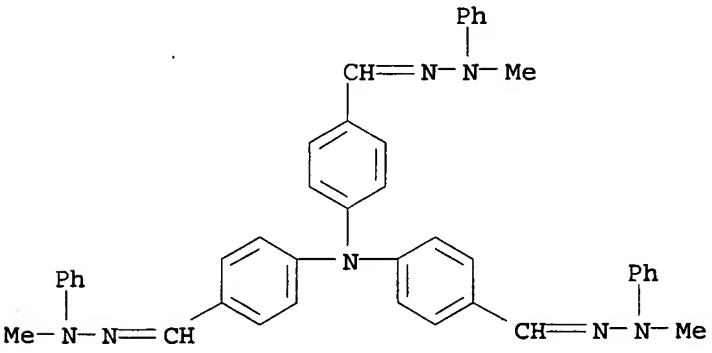
RN 87755-91-7 HCAPLUS
CN Benzaldehyde, 4,4'-(phenylimino)bis-, bis(diphenylhydrazone) (9CI) (CA INDEX NAME)



RN 95640-40-7 HCAPLUS
CN 9H-Carbazole-3,6-dicarboxaldehyde, 9-ethyl-, bis(methylphenylhydrazone) (9CI) (CA INDEX NAME)

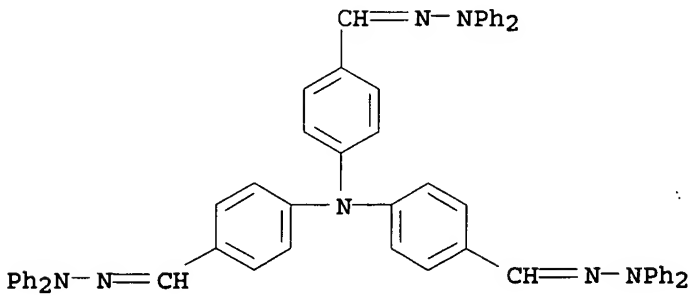


RN 122366-51-2 HCAPLUS
CN Benzaldehyde, 4,4',4''-nitrilotris-, tris(methylphenylhydrazone) (9CI) (CA INDEX NAME)

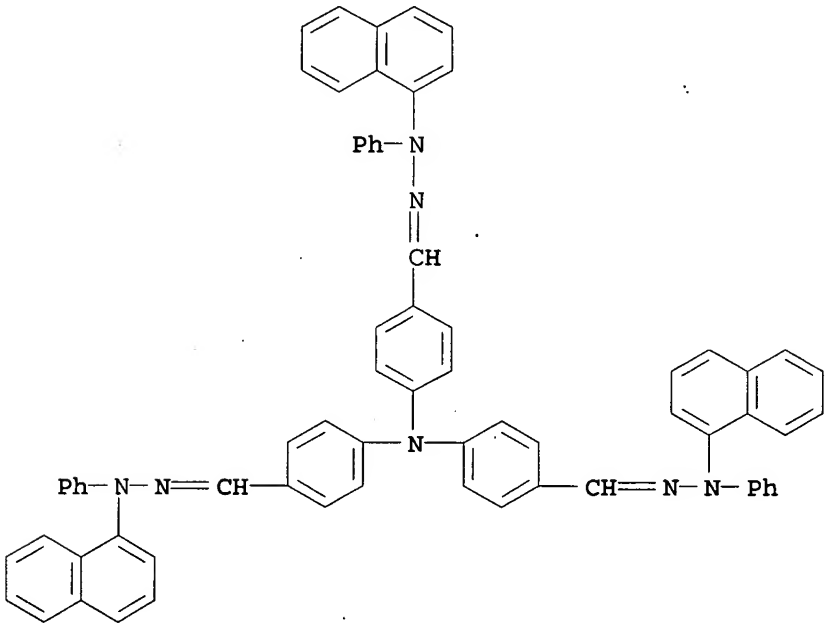


RN 122366-54-5 HCAPLUS

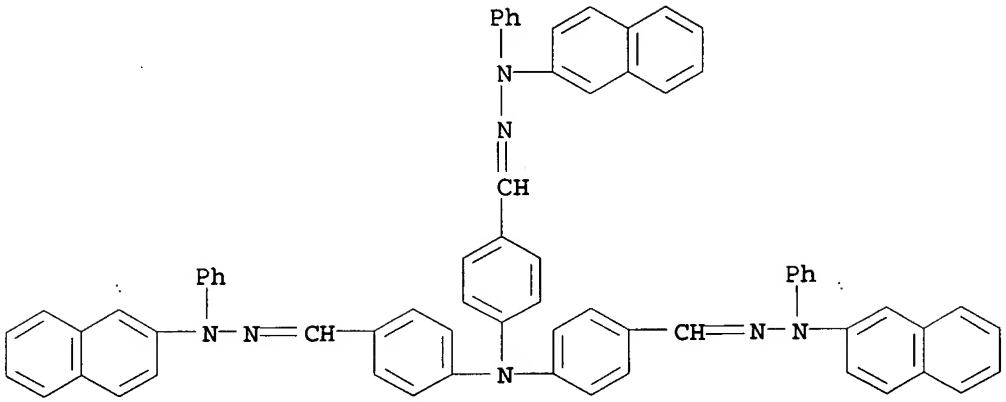
CN Benzaldehyde, 4,4',4''-nitrilotris-, tris(diphenylhydrazone) (9CI) (CA INDEX NAME)



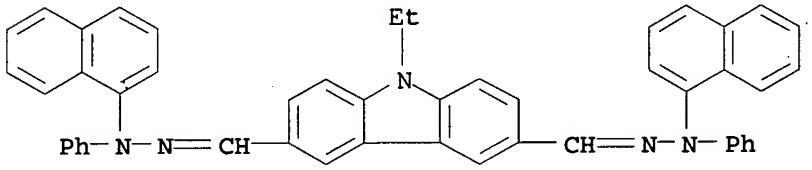
RN 122366-55-6 HCAPLUS
CN Benzaldehyde, 4,4',4''-nitrilotris-, tris(1-naphthalenylphenylhydrazone) (9CI) (CA INDEX NAME)



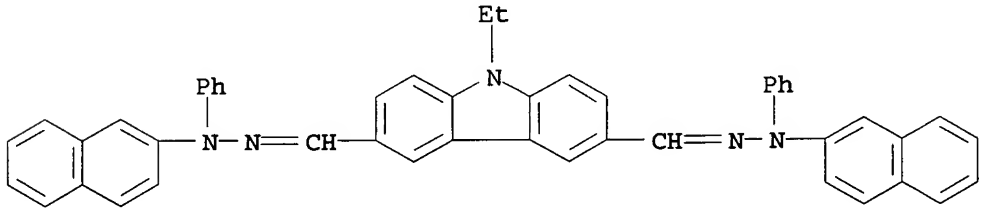
RN 673456-21-8 HCAPLUS
CN Benzaldehyde, 4,4',4''-nitrilotris-, tris(2-naphthalenylphenylhydrazone) (9CI) (CA INDEX NAME)



RN 685129-61-7 HCAPLUS
CN 9H-Carbazole-3,6-dicarboxaldehyde, 9-ethyl-, bis(1-naphthalenylphenylhydrazone) (9CI) (CA INDEX NAME)



RN 685129-63-9 HCAPLUS
CN 9H-Carbazole-3,6-dicarboxaldehyde, 9-ethyl-, bis(2-naphthalenylphenylhydrazone) (9CI) (CA INDEX NAME)



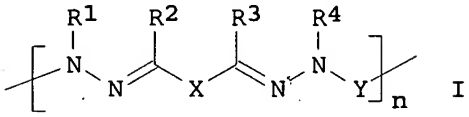
L66 ANSWER 3 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2004:802400 HCAPLUS
DN 141:322520
TI Polymeric **charge** transport compositions for electrophotographic photoreceptor
IN Getautis, Vytautas; Malinauskas, Tadas; Grazulevicius, Jouzas V.; Gaidelis, Valentas; Jankauskas, Vygintas; Tokarski, Zbignie W.; Jubran, Nusrallah; Law, Kam W.
PA Lithuania
SO U.S. Pat. Appl. Publ., 20 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

application

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004191655	A1	20040930	US 2004-772069	20040204 <--
	KR 2004086186	A	20041008	KR 2004-19339	20040322 <--
	EP 1471391	A1	20041027	EP 2004-251887	20040330 <--
	EP 1471391	B1	20060125		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK				
	CN 1540448	A	20041027	CN 2004-10045166	20040331 <--
	JP 2004302472	A	20041028	JP 2004-104546	20040331 <--
PRAI	US 2003-458932P	P	20030331 <--		
	US 2004-772069	A	20040204		

OS MARPAT 141:322520

GI



I

AB This invention relates to a novel electrophotog. organophotoreceptor that includes: (a) a **charge** transport composition comprising mols. having the formula I (n = 2-50,000; R1, R2, R3, R4 = H, alkyl alkenyl, heterocyclic, aromatic; X comprises (N,N-disubstituted)arylamine group; Y = bridging group); (b) a **charge** generating compound; and (c) an elec. conductive substrate over which the **charge** transport composition and the **charge** generating compound are located. This invention provides organophotoreceptors having good electrostatic properties such as high Vacc and low Vdis. This invention also provides polymeric **charge** transport compns. having reduced phase separation from polymeric binders and reduced extraction by liquid carriers.

IC ICM G03G005-06

INCL 430079000; 430073000; 430074000

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38

ST polymeric **charge** transport compn electrophotog photoreceptor

IT Electrophotographic photoconductors (photoreceptors)
(polymeric **charge** transport compns. for electrophotog. photoreceptor)

IT **767353-96-8P 767353-97-9P 767353-98-0P 767353-99-1P**
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(polymeric **charge** transport compns. for electrophotog. photoreceptor)

IT 53566-95-3P 70207-46-4P **95640-42-9P** 122112-54-3P **683273-05-4P 741694-52-0P 741694-53-1P 741694-54-2P 741694-55-3P**
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); **PREP (Preparation)**; RACT (Reactant or reagent)
(synthesis of polymeric **charge** transport compns. for electrophotog. photoreceptor)

IT 86-28-2, 9-Ethylcarbazole 100-63-0, Phenylhydrazine 106-89-8, Epichlorohydrin, reactions 274-30-6, 1,3-Benzodithiole 603-34-9, Triphenylamine 4316-53-4, 4-Methyltriphenylamine 19362-77-7, 4,4'-Thiobisbenzenethiol

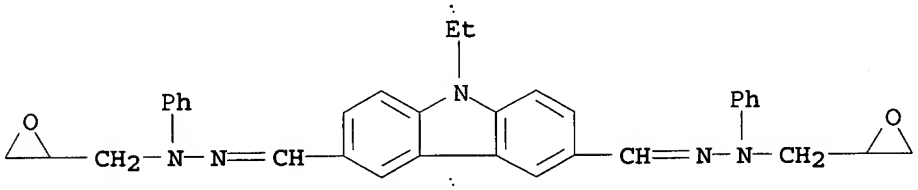
RL: RCT (Reactant); RACT (Reactant or reagent)
(synthesis of polymeric **charge** transport compns. for electrophotog. photoreceptor)

IT **767353-96-8P 767353-97-9P 767353-98-0P 767353-99-1P**
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(polymeric **charge** transport compns. for electrophotog. photoreceptor)

RN 767353-96-8 HCAPLUS
CN 9H-Carbazole-3,6-dicarboxaldehyde, 9-ethyl-, bis[(oxiranylmethyl)phenylhydrazone], polymer with 4,4'-thiobis[benzenethiol] (9CI) (CA INDEX NAME)

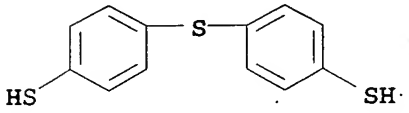
CM 1

CRN 683273-05-4
CMF C34 H33 N5 O2



CM 2

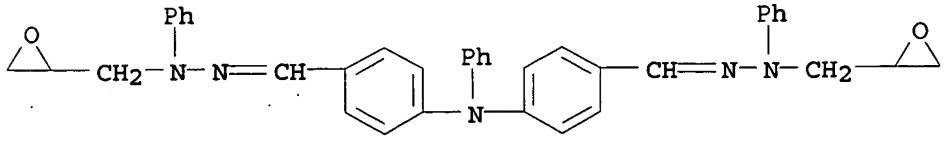
CRN 19362-77-7
CMF C12 H10 S3



RN 767353-97-9 HCAPLUS
CN Benzaldehyde, 4,4'-(phenylimino)bis-, bis[(oxiranylmethyl)phenylhydrazone], polymer with 4,4'-thiobis[benzenethiol] (9CI) (CA INDEX NAME)

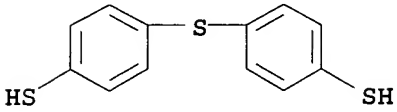
CM 1

CRN 741694-52-0
CMF C38 H35 N5 O2



CM 2

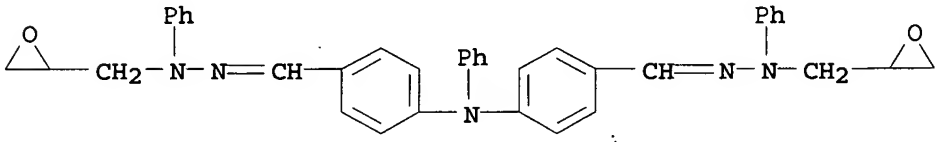
CRN 19362-77-7
CMF C12 H10 S3



RN 767353-98-0 HCAPLUS
CN Benzaldehyde, 4,4'-(phenylimino)bis-, bis[(oxiranylmethyl)phenylhydrazone], polymer with 1,3-benzenedithiol (9CI) (CA INDEX NAME)

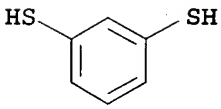
CM 1

CRN 741694-52-0
CMF C38 H35 N5 O2



CM 2

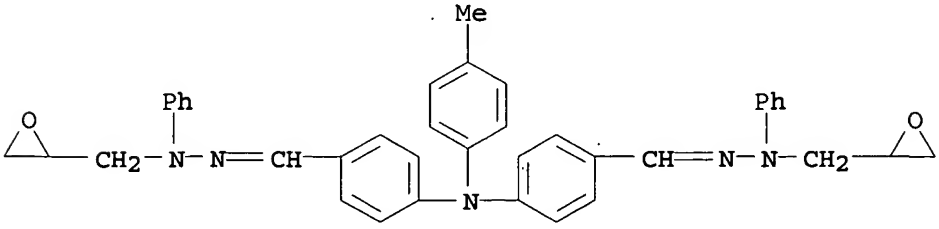
CRN 626-04-0
CMF C6 H6 S2



RN 767353-99-1 HCAPLUS
CN Benzaldehyde, 4,4'-[(4-methylphenyl)imino]bis-, bis[(oxiranylmethyl)phenylhydrazone], polymer with 4,4'-thiobis[benzenethiol] (9CI) (CA INDEX NAME)

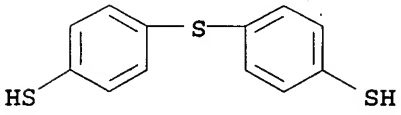
CM 1

CRN 741694-53-1
CMF C39 H37 N5 O2

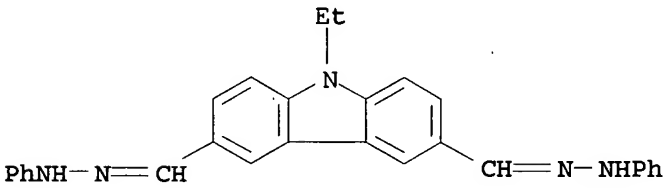


CM 2

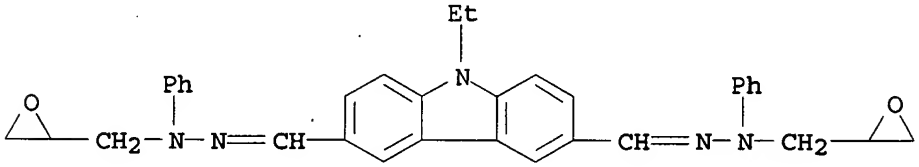
CRN 19362-77-7
CMF C12 H10 S3



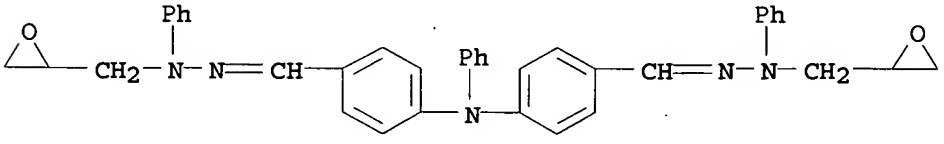
IT **95640-42-9P 683273-05-4P 741694-52-0P**
741694-53-1P 741694-54-2P 741694-55-3P
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation);
PREP (Preparation); RACT (Reactant or reagent)
(synthesis of polymeric **charge** transport compns. for electrophotog. photoreceptor)
RN 95640-42-9 HCAPLUS
CN 9H-Carbazole-3,6-dicarboxaldehyde, 9-ethyl-, bis(phenylhydrazone) (9CI) (CA INDEX NAME)



RN 683273-05-4 HCAPLUS
CN 9H-Carbazole-3,6-dicarboxaldehyde, 9-ethyl-, bis[(oxiranylmethyl)phenylhydrazone] (9CI) (CA INDEX NAME)

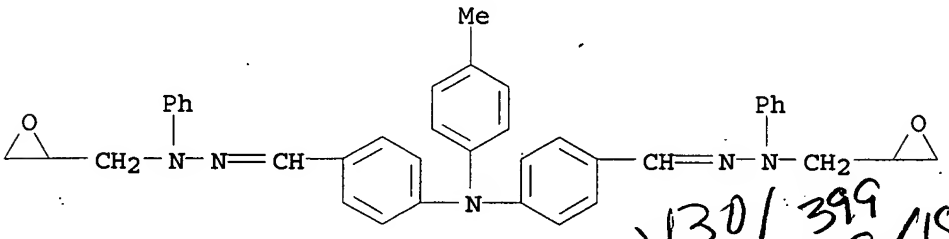


RN 741694-52-0 HCAPLUS
CN Benzaldehyde, 4,4'-(phenylimino)bis-, bis[(oxiranylmethyl)phenylhydrazone] (9CI) (CA INDEX NAME)



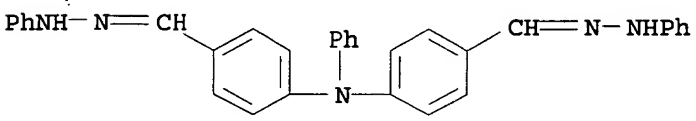
RN 741694-53-1 HCAPLUS

CN Benzaldehyde, 4,4'-[(4-methylphenyl)imino]bis-, bis[(oxiranylmethyl)phenylhydrazone] (9CI) (CA INDEX NAME)

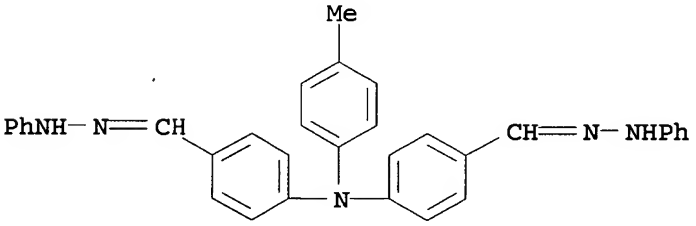


430/399 79/159

RN 741694-54-2 HCAPLUS
CN Benzaldehyde, 4,4'-(phenylimino)bis-, bis(phenylhydrazone) (9CI) (CA INDEX NAME)



RN 741694-55-3 HCAPLUS
CN Benzaldehyde, 4,4'-[(4-methylphenyl)imino]bis-, bis(phenylhydrazone) (9CI) (CA INDEX NAME)



L66 ANSWER 4 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2004:681284 HCAPLUS
DN 141:215564
TI Organophotoreceptor with a **charge** transport compound having an epoxy group
IN Getautis, Vytautas; Daskeviciene, Maryte; Malinauskas, Tadas; Montrimas, Edmundas; Sidaravicius, Jonas; Tokarski, Zbigniew; Jubran, Nusrallah; Law, Kam W.
PA Samsung Electronics Co., Ltd., S. Korea
SO U.S. Pat. Appl. Publ., 30 pp., Cont.-in-part of U.S. Pat. Appl. 2004 81,903.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004161685	A1	20040819	US 2004-772068	20040204 <--
	US 7090953	B2	20060815		

	US 2004081903	A1	20040429	US 2003-634164	20030805 <--
	US 7029812	B2	20060418		
	KR 2004086176	A	20041008	KR 2004-16416	20040311 <--
	EP 1465020	A2	20041006	EP 2004-251886	20040330 <--
	EP 1465020	A3	20050921		
	EP 1465020	B1	20061018		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
	JP 2004302471	A	20041028	JP 2004-103640	20040331 <--
	CN 1570774	A	20050126	CN 2004-10064024	20040331 <--
PRAI	US 2002-421174P	P	20021025 <--		
	US 2002-421179P	P	20021025 <--		
	US 2002-421228P	P	20021025 <--		
	US 2003-459150P	P	20030331 <--		
	US 2003-634164	A2	20030805 <--		
	US 2004-772068	A	20040204		

OS MARPAT 141:215564

AB This invention relates to a novel organo photoreceptor that comprises an elec. conductive substrate and photoconductive element on the elec. conductive substrate, the photoconductive element having (a) a **charge** transport compound R4R2C=N-NR1-X-R3 (R1 = aromatic group, alkyl group, alkenyl group, heterocyclic group; R2 comprises an (N,N-disubstituted)arylamine group; R3 = epoxy group; R4 = H, aromatic group, alkyl group, alkenyl group, heterocyclic group; and X = first linking group); and (b) a **charge** generating compound The epoxy group can be reacted with a functional group within the polymer to form a polymeric **charge** transport compound either directly or through a crosslinking agent. Corresponding electrophotog. apparatuses and imaging methods are also described.

IC ICM G03G005-06

INCL 430079000; X43-0 7.5; X43-012.6; X54-844.0; X54-951.2

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST electrophotog organo photoreceptor **charge** transport compd epoxy

IT Electrophotographic photoconductors (photoreceptors)
(organo photoreceptor with **charge** transport compound having epoxy group)

IT 93376-18-2P
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(electron transport compound; organo photoreceptor with **charge** transport compound having epoxy group and)

IT 188715-94-8P 634607-40-2P 683273-04-3P **683273-05-4P**
741694-52-0P 741694-53-1P
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(organo photoreceptor with **charge** transport compound having epoxy group)

IT 70207-46-4P, N-Ethyl-3,6-diformylcarbazole 122112-54-3P, 4,4'-Diformyl-4''-MethylTriphenylamine
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of **charge** transport compound having epoxy group for organo photoreceptor)

IT 68-12-2, Dimethylformamide, reactions 86-28-2, N-Ethylcarbazole 100-63-0, Phenylhydrazine 603-34-9, Triphenylamine 4181-05-9, 4-(Diphenylamino)benzaldehyde 4316-53-4, 4-MethylTriphenylamine 7570-45-8, 9-Ethyl-3-carbazolecarboxaldehyde 42906-19-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of **charge** transport compound having epoxy group for

organo photoreceptor)

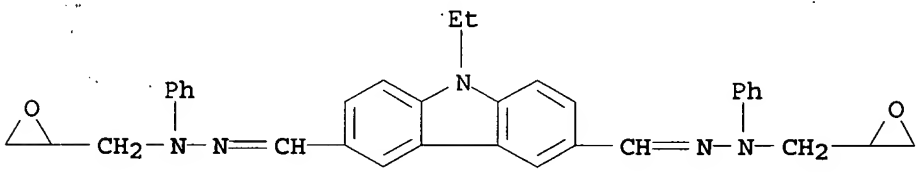
IT 53566-95-3P 87755-85-9P **95640-42-9P** 117346-00-6P
627862-62-8P **741694-54-2P 741694-55-3P**
RL: RCT (Reactant); SPN (Synthetic preparation); **PREP (Preparation)**; RACT (Reactant or reagent)
(preparation of **charge** transport compound having epoxy group for organo photoreceptor)

IT 6223-83-2P 93519-65-4P
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of electron transport compound having epoxy group for organo photoreceptor)

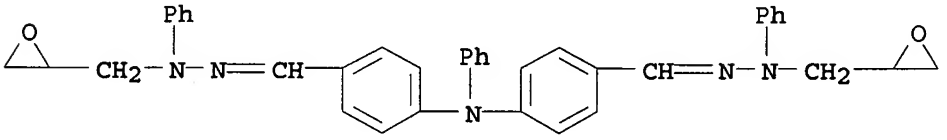
IT 71-36-3, n-Butanol, reactions 482-05-3, Diphenic acid
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of electron transport compound having epoxy group for organo photoreceptor)

IT **683273-05-4P 741694-52-0P 741694-53-1P**
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(organo photoreceptor with **charge** transport compound having epoxy group)

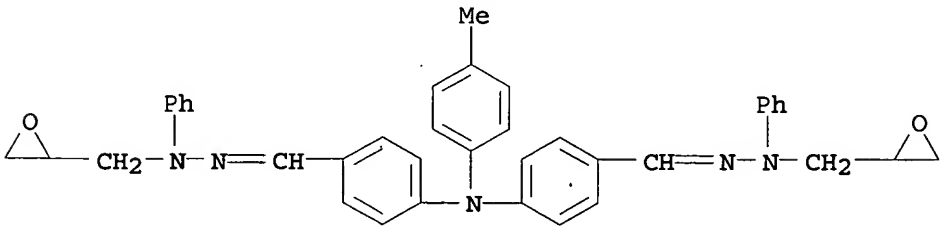
RN 683273-05-4 HCAPLUS
CN 9H-Carbazole-3,6-dicarboxaldehyde, 9-ethyl-, bis[(oxiranylmethyl)phenylhydrazone] (9CI) (CA INDEX NAME)



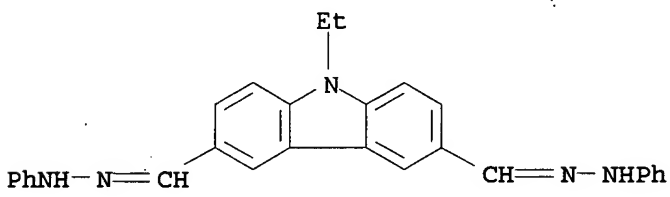
RN 741694-52-0 HCAPLUS
CN Benzaldehyde, 4,4'-(phenylimino)bis-, bis[(oxiranylmethyl)phenylhydrazone] (9CI) (CA INDEX NAME)



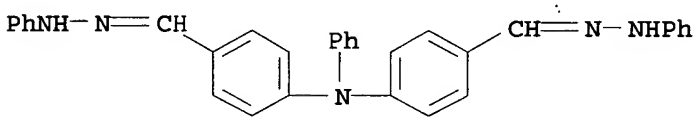
RN 741694-53-1 HCAPLUS
CN Benzaldehyde, 4,4'-[(4-methylphenyl)imino]bis-, bis[(oxiranylmethyl)phenylhydrazone] (9CI) (CA INDEX NAME)



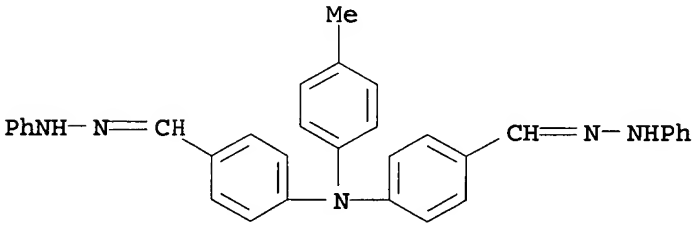
IT **95640-42-9P 741694-54-2P 741694-55-3P**
RL: RCT (Reactant); SPN (Synthetic preparation); **PREP (Preparation)**; RACT (Reactant or reagent)
(preparation of **charge** transport compound having epoxy group for organo photoreceptor)
RN 95640-42-9 HCAPLUS
CN 9H-Carbazole-3,6-dicarboxaldehyde, 9-ethyl-, bis(phenylhydrazone) (9CI) (CA INDEX NAME)



RN 741694-54-2 HCAPLUS
CN Benzaldehyde, 4,4'-(phenylimino)bis-, bis(phenylhydrazone) (9CI) (CA INDEX NAME)



RN 741694-55-3 HCAPLUS
CN Benzaldehyde, 4,4'-[(4-methylphenyl)imino]bis-, bis(phenylhydrazone) (9CI) (CA INDEX NAME)



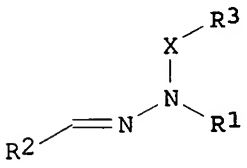
RE.CNT 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L66 ANSWER 5 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2004:354667 HCAPLUS
DN 140:383064
TI Organophotoreceptor with **charge** transport compound having epoxy group
IN Tokarski, Zbigniew; Jubran, Nusrallah; Law, Kam W.; Getautis, Vytautas; Sidaravicius, Jonas V.; Daskeviciene, Maryte; Jankauskas, Vygintas; Montrimas, Edmundas; Gaidelis, Valentas; Stanisauskaite, Albina
PA Samsung Electronics Co., Ltd., S. Korea
SO U.S. Pat. Appl. Publ., 23 pp.
CODEN: USXXCO

DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004081903	A1	20040429	US 2003-634164	20030805 <--
	US 7029812	B2	20060418		
	KR 2004036559	A	20040430	KR 2003-72136	20031016 <--
	EP 1420303	A2	20040519	EP 2003-256682	20031023 <--
	EP 1420303	A3	20050608		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	CN 1532635	A	20040929	CN 2003-10124795	20031025 <--
	JP 2004143180	A	20040520	JP 2003-366545	20031027 <--
	US 2004161685	A1	20040819	US 2004-772068	20040204 <--
	US 7090953	B2	20060815		
	US 2006147827	A1	20060706	US 2006-366062	20060302 <--
PRAI	US 2002-421174P	P	20021025 <--		
	US 2002-421179P	P	20021025 <--		
	US 2002-421228P	P	20021025 <--		
	US 2003-459150P	P	20030331 <--		
	US 2003-634164	A2	20030805 <--		

OS MARPAT 140:383064
GI



I

AB This invention relates to a novel organophotoreceptor that comprises an elec. conductive substrate and photoconductive element on the elec. conductive substrate, the photoconductive element having (a) a novel **charge** transport compound having the formula I (X = C1-30-divalent hydrocarbon, or C1-30-divalent hydrocarbon where there is at least one substitution of a carbon atom by a heteroatom provided that no two heteroatoms may be adjacent within the backbone of an aliphatic divalent hydrocarbon radical; R1 = aryl, heterocyclic; R2 = (N,N-disubstituted)arylamine; R3 = epoxy); and (b) a **charge** generating compound The epoxy group can be reacted with a functional group within the polymer to form a polymeric **charge** transport compound either directly or through a crosslinking agent. This invention provides organophotoreceptors having good electrostatic properties such as high **charge** acceptance and low discharge voltage.

IC ICM G03G005-04
ICS C07D303-36
INCL 430075000; X43-0 7.9; X43-0 9.6; X43-012.4; X43-013.3; X54-955.1
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST electrophotog photoreceptor photoconductor **charge** transport compd epoxy group
IT Electrophotographic photoconductors (photoreceptors)
(organophotoreceptor with **charge** transport compound having

epoxy group)

IT 93376-18-2P 188715-94-8P 634607-40-2P 683273-04-3P
683273-05-4P
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(organophotoreceptor with **charge** transport compound having epoxy group)

IT 85-44-9, Phthalic anhydride 108-31-6, Maleic anhydride, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(organophotoreceptor with **charge** transport compound having epoxy group)

IT 70207-46-4P, N-Ethyl-3,6-diformylcarbazole
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of **charge** transport compound having epoxy group)

IT 86-28-2, N-Ethylcarbazole 100-63-0, Phenylhydrazine 4181-05-9, 4-(Diphenylamino) benzaldehyde 7570-45-8, 9-Ethyl-3-carbazolecarboxaldehyde 42906-19-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of **charge** transport compound having epoxy group)

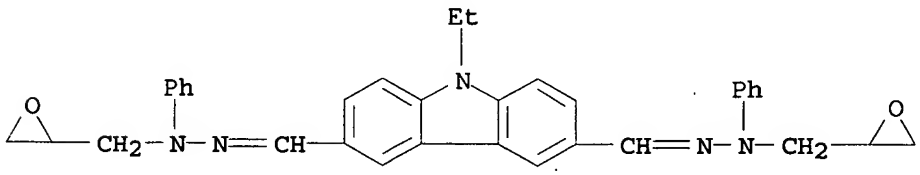
IT 87755-85-9P **95640-42-9P** 117346-00-6P 627862-62-8P
RL: RCT (Reactant); SPN (Synthetic preparation); **PREP (Preparation)**; RACT (Reactant or reagent)
(preparation of **charge** transport compound having epoxy group)

IT 6223-83-2P, Fluorenone-4-carboxylic acid 93519-65-4P
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of electron transport compound)

IT 71-36-3, n-Butanol, reactions 109-77-3, Malononitrile 482-05-3, Diphenic acid
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of electron transport compound)

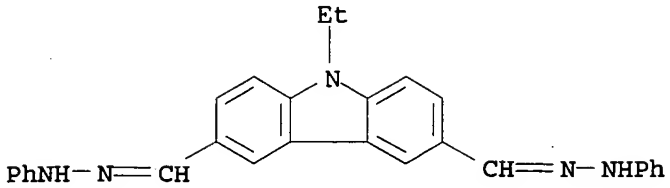
IT **683273-05-4P**
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(organophotoreceptor with **charge** transport compound having epoxy group)

RN 683273-05-4 HCAPLUS
CN 9H-Carbazole-3,6-dicarboxaldehyde, 9-ethyl-, bis[(oxiranylmethyl)phenylhydrazone] (9CI) (CA INDEX NAME)



IT **95640-42-9P**
RL: RCT (Reactant); SPN (Synthetic preparation); **PREP (Preparation)**; RACT (Reactant or reagent)
(preparation of **charge** transport compound having epoxy group)

RN 95640-42-9 HCAPLUS
CN 9H-Carbazole-3,6-dicarboxaldehyde, 9-ethyl-, bis(phenylhydrazone) (9CI) (CA INDEX NAME)



RE.CNT 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L66 ANSWER 6 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2003:874854 HCAPLUS
DN 139:371843
TI Carbazole based **charge** transport compounds
IN Jubran, Nusrallah; Tokarski, Zbigniew; Law, Kam W.
PA Samsung Electronic Co., Ltd., USA
SO U.S. Pat. Appl. Publ., 19 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003207188	A1	20031106	US 2003-382392	20030306 <--
	US 6835513	B2	20041228		
	KR 2003078788	A	20031008	KR 2003-19674	20030328 <--
PRAI	US 2002-368253P	P	20020328 <--		

OS MARPAT 139:371843
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

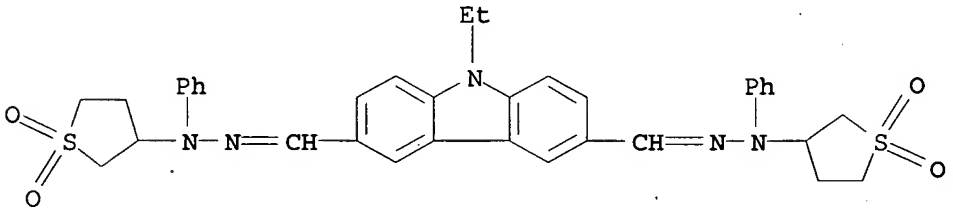
AB The present invention relates to electrophotog. organo-photoreceptors have: (a) a **charge** transport compound having the formula I (R1 = H, alkyl group, hydrocarbon group, ether group, aryl group; R2,3 = ArNR4; Ar is selected form II, III, IV, V, VI, VII, VIII, IX; R4 = H, aromatic group); (b) a **charge** generating compound; and (c) an elec. conductive substrate.
IC ICM G03G005-047
ICS C07D043-02; C07D257-10
INCL 430058150; 430079000; 430058600; 399159000; 430117000; 430124000; 548254000; 548257000; 548364700; 548444000
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST electrophotog organo photoreceptor carbazole **charge** transport compd
IT Electrophotographic photoconductors (photoreceptors)
(electrophotog. organo-photoreceptors carbazole based **charge** transport compds.)
IT **622837-06-3P 622837-07-4P**
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(carbazole based **charge** transport compds. for electrophotog. organo-photoreceptors)

IT 86-74-8, Carbazole 110-53-2, 1-Bromopentane 112-29-8, 1-Bromodecane 112-71-0, 1-Bromotetradecane 143-15-7, 1-Bromododecane 629-04-9, 1-Bromoheptane 637-59-2, 1-Bromo-3-phenylpropane 765-09-3, 1-Bromotridecane 18908-66-2, 2-Ethylhexylbromide
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of carbazole based **charge** transport compds. for electrophotog. organo-photoreceptors)

IT 1484-07-7P, N-Pentylcarbazole 7435-54-3P 20863-23-4P, N-Dodecyl carbazole 20863-25-6P, N-Tetradecylcarbazole 110045-73-3P 169051-20-1P, N-2-Ethylhexyl-3,6-Diformylcarbazole 173483-07-3P 183275-89-0P, N-Tetradecyl-3,6-Diformylcarbazole 187148-77-2P, N-2-Ethylhexylcarbazole 360789-03-3P 360789-04-4P 360789-05-5P 360789-06-6P 622837-04-1P 622837-05-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of carbazole based **charge** transport compds. for electrophotog. organo-photoreceptors)

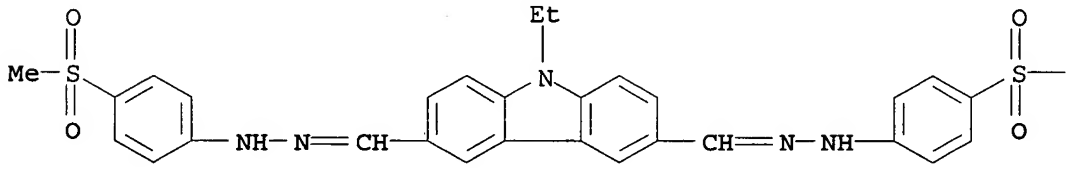
IT **622837-06-3P 622837-07-4P**
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(carbazole based **charge** transport compds. for electrophotog. organo-photoreceptors)

RN 622837-06-3 HCAPLUS
CN 9H-Carbazole-3,6-dicarboxaldehyde, 9-ethyl-, bis[phenyl(tetrahydro-1,1-dioxido-3-thienyl)hydrazone] (9CI) (CA INDEX NAME)



RN 622837-07-4 HCAPLUS
CN 9H-Carbazole-3,6-dicarboxaldehyde, 9-ethyl-, bis[[4-(methylsulfonyl)phenyl]hydrazone] (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

— Me

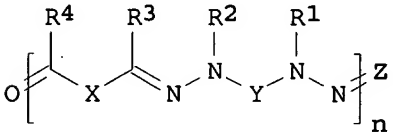
RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L66 ANSWER 7 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2003:855503 HCAPLUS
DN 139:356035
TI Sulfonyldiphenylene-based **charge** transport compositions
IN Law, Kam W.; Jubran, Nusrallah; Tokarski, Zbigniew
PA Samsung Electronics Co., Ltd., USA
SO U.S. Pat. Appl. Publ., 21 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003203296	A1	20031030	US 2003-385148	20030310 <--
	US 6864025	B2	20050308		
	KR 2003078789	A	20031008	KR 2003-19675	20030328 <--
PRAI	US 2002-368256P	P	20020328 <--		
	US 2002-368297P	P	20020328 <--		

GI



I

AB This invention relates to a novel electrophotog. organo photoreceptor that includes: (a) a **charge** transport composition comprising mols. having the formula I (n = 1-1000; R1-4 = H, C1-30 alkyl group, unsatd. hydrocarbon group, ether group, cycloalkyl group (e.g. a cyclohexyl group), aryl group (e.g., a Ph or naphthyl group); X = divalent carbazole group, divalent biscarbazole alkane group; Y = divalent sulfonyldiphenylene group; Z = C(R4)-X-C(R3)=O double-bonded to the adjacent N or two hydrogens where each hydrogen is independently single-bonded to the adjacent N; Q = O, N-N(R1)-Y-N(R2)-NH2); (b) a **charge** generating compound; and (c) an elec. conductive substrate over which the **charge** transport composition and the **charge** generating compound are located.

IC ICM G03G005-047
INCL 430058600; 430079000; 430126000; 430117000; 548440000; 548441000; 548444000
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST electrophotog organo photoreceptor sulfonyldiphenylene **charge** transport compn
IT Electrophotographic photoconductors (photoreceptors)
(electrophotog organo photoreceptor containing sulfonyldiphenylene-based **charge** transport compns.)
IT Polysulfones, preparation
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polyazomethine-; sulfonyldiphenylene-based **charge** transport compns. for electrophotog. organo photoreceptor)

IT Polyazomethines
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polysulfone-; sulfonyldiphenylene-based **charge** transport compns. for electrophotog. organo photoreceptor)

IT 618388-30-0P **618388-34-4P**
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(oligomeric; sulfonyldiphenylene-based **charge** transport compns. for electrophotog. organo photoreceptor)

IT 618388-32-2P 618388-36-6P
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(oligomeric; sulfonyldiphenylene-based **charge** transport compns. for electrophotog. organo photoreceptor)

IT 169834-39-3P
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of sulfonyldiphenylene-based **charge** transport compns. for electrophotog. organo photoreceptor)

IT 86-74-8, Carbazole 112-71-0, 1-Bromotetradecane 143-15-7, 1-Bromododecane 629-04-9, 1-Bromoheptane 637-59-2, 1-Bromo-3-phenylpropane 765-09-3, 1-Bromotridecane 14052-65-4 18908-66-2, 2-Ethylhexylbromide 36182-49-7, Dibromodecane
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of sulfonyldiphenylene-based **charge** transport compns. for electrophotog. organo photoreceptor)

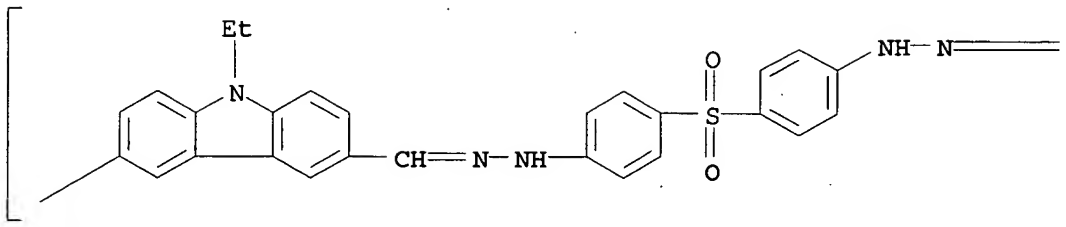
IT 4041-20-7P, N-Heptyl carbazole 20863-23-4P, N-Dodecyl carbazole 20863-25-6P, N-Tetradecylcarbazole 60834-42-6P 70207-46-4P, 9-Ethyl-3,6-diformylcarbazole 110045-73-3P 169051-20-1P, N-2-Ethylhexyl-3,6-Diformylcarbazole 169834-33-7P, 1,10-Bis(3-formyl-9-carbazolyl)decane 173483-07-3P 183275-89-0P, N-Tetradecyl-3,6-Diformylcarbazole 187148-77-2P, N-2-Ethylhexylcarbazole 360789-03-3P, N-Dodecyl-3,6-Diformylcarbazole 360789-04-4P, N-Tridecylcarbazole 360789-05-5P, N-Tridecyl-3,6-Diformylcarbazole 360789-06-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of sulfonyldiphenylene-based **charge** transport compns. for electrophotog. organo photoreceptor)

IT **618388-34-4P**
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(oligomeric; sulfonyldiphenylene-based **charge** transport compns. for electrophotog. organo photoreceptor)

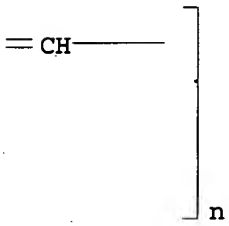
RN 618388-34-4 HCAPLUS

CN Poly[(9-ethyl-9H-carbazole-3,6-diyl)methylidyne-2-hydrazinyl-1-ylidene-1,4-phenylenesulfonyl-1,4-phenylene-1-hydrazinyl-2-ylidenemethylidyne] (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



RE.CNT 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L66 ANSWER 8 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2003:686666 HCAPLUS
DN 140:209349
TI Novel polymeric metal complexes based on bis-(8-hydroxyquinoline)
AU Xie, Juntao; Fan, Liqiang; Su, Jianhua; Tian, He
CS Institute of Fine Chemicals, East China University of Science & Technology, Shanghai, 200237, Peop. Rep. China
SO Dyes and Pigments (**2003**), 59(2), 153-162
CODEN: DYPIDX; ISSN: 0143-7208
PB Elsevier Science Ltd.
DT Journal
LA English
OS CASREACT 140:209349
AB 8-Hydroxyquinoline derivs. were prepd . from which novel polymeric Al and Zn metal complexes were synthesized by a concise route. Substitution effects on their fluorescence spectra in the solution and in the solid state were tested and discussed preliminarily.
CC 78-7 (Inorganic Chemicals and Reactions)
Section cross-reference(s): 27, 73
ST hydroxyquinoline deriv prepn complexation aluminum zinc; aluminum hydroxyquinoline complex prepn fluorescence; zinc hydroxyquinoline complex prepn fluorescence
IT Fluorescence
(of aluminum and zinc hydroxyquinoline complexes)
IT Substituent effects
(on fluorescence of aluminum and zinc hydroxyquinoline complexes)
IT 10522-70-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(complexation with aluminum and zinc)
IT 2536-71-2
RL: RCT (Reactant); RACT (Reactant or reagent)

(complexation with aluminum and zinc and reactant for preparation of hydroxyquinoline derivs.)

IT 10522-71-1P 22505-80-2P 25350-73-6P 100769-46-8P 661454-32-6P 661454-34-8P 661454-35-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and complexation with aluminum and zinc)

IT 47725-76-8P 100774-97-8P 106482-27-3P 661454-17-7P 661454-18-8P 661454-20-2P 661454-22-4P 661454-24-6P 661454-27-9P 661454-28-0P 661454-29-1P 661454-30-4P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and fluorescence of polymeric)

IT 342897-72-7P 661454-19-9P 661454-21-3P 661454-23-5P **661454-25-7P** 661454-26-8P
RL: SPN (Synthetic preparation); **PREP (Preparation)**
(preparation of polymeric)

IT 13963-57-0, Tris(acetylacetonato)aluminum
RL: RCT (Reactant); RACT (Reactant or reagent)
(reactant for preparation of aluminum hydroxyquinoline derivs.)

IT 106-50-3, 1,4-Benzenediamine, reactions 107-15-3, Ethylenediamine, reactions 110-85-0, Piperazine, reactions 110-89-4, Piperidine, reactions 110-91-8, Morpholine, reactions 111-92-2, Dibutylamine 124-09-4, 1,6-Hexanediamine, reactions 148-24-3, 8-Hydroxyquinoline, reactions 302-01-2, Hydrazine, reactions 2598-30-3, 8-Hydroxy-5-quinolinecarboxaldehyde
RL: RCT (Reactant); RACT (Reactant or reagent)
(reactant for preparation of hydroxyquinoline derivs.)

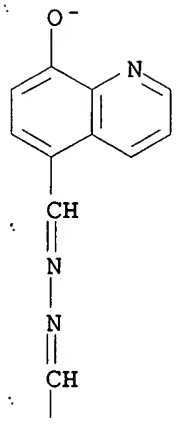
IT 14024-63-6, Bis(acetylacetonato)zinc
RL: RCT (Reactant); RACT (Reactant or reagent)
(reactant for preparation of zinc hydroxyquinoline derivs.)

IT **661454-25-7P**
RL: SPN (Synthetic preparation); **PREP (Preparation)**
(preparation of polymeric)

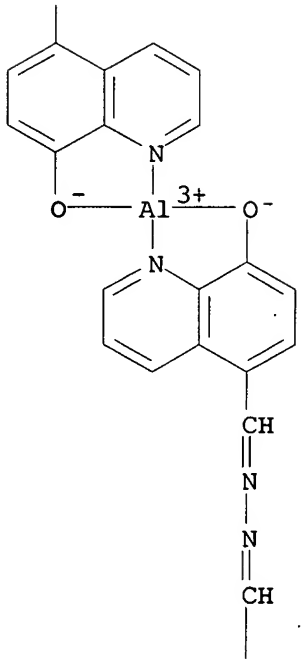
RN 661454-25-7 HCAPLUS

CN Aluminum, [μ-[[5,5'-(azinodimethylidyne)bis[8-quinolinolato-κN1,κO8]](2-)]]bis[5-[[[(8-hydroxy-5-quinolinyl)methylene]hydrazono]methyl]-8-quinolinolato(2-)-κN1,κO8]di- (9CI) (CA INDEX NAME)

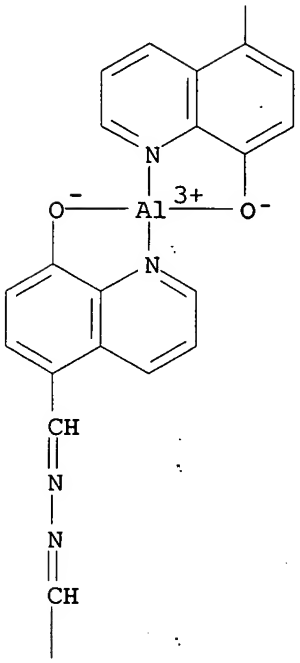
PAGE 1-A



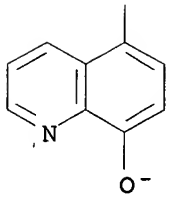
PAGE 2-A



PAGE 3-A



PAGE 4-A



RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L66 ANSWER 9 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2002:954170 HCAPLUS
DN 138:228809
TI Diffraction behavior of photorefractive molecular materials containing phenothiazine derivatives
AU Choi, Dong Hoon; Oh, Kwang Yong; Jun, Woong Gi; Kim, Jae Hong; Choi, Suk-Ho
CS Institute of Natural Sciences, College of Environment and Applied Chemistry, Kyung Hee University, Suwon, 449-701, S. Korea
SO Applied Physics Letters (2002), 81(25), 4727-4729
CODEN: APPLAB; ISSN: 0003-6951
PB American Institute of Physics
DT Journal
LA English
AB The diffraction behavior is reported of the photorefractive (PR) mol. materials that contain the phenothiazine derivs. Diphenylhydrazine and

malononitrile were reacted with N-alkyl substituted phenothiazinyl aldehyde to provide **charge** transporting and nonlinear optical mols., resp. In the mol. materials prepared with phenothiazine derivs., unusual complementary gratings formed by the space **charge** fields of 2 types of photocarriers were observed, which can be explained based on a bipolar 2-trap PR model. Adding the specific mols. to the host PR materials increased the trapped hole d. during grating formation and erasing processes.

CC 73-10 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
Section cross-reference(s): 22, 28

ST diffraction photorefractive mol material phenothiazine deriv

IT Optical diffraction
(behavior of photorefractive materials containing phenothiazine derivs.)

IT Photorefractive materials
(diffraction behavior of phenothiazine derivative-containing)

IT Nonlinear optical materials
(diffraction behavior of phenothiazine derivative-containing photorefractive)

IT Diffraction gratings
(writing and erasing of photorefractive materials containing phenothiazine derivs.)

IT 109-77-3, Malononitrile 530-50-7, 1,1-Diphenylhydrazine
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation reaction with ethylhexyl phenothiazinyl aldehyde)

IT 501116-23-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation reactions with malononitrile or diphenylhydrazine)

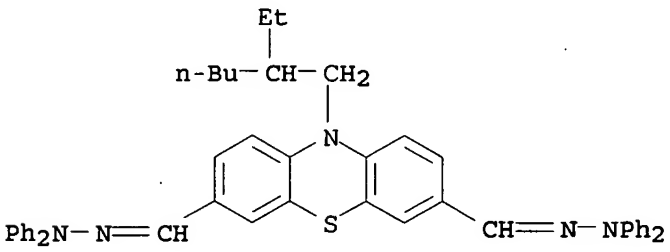
IT 129-79-3, 2,4,7-Trinitro-9H-fluoren-9-one
RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses)
(diffraction behavior of photorefractive materials containing phenothiazine derivs. and containing)

IT 501116-21-8P **501116-22-9P** 501117-66-4P
RL: PNU (Preparation, unclassified); PRP (Properties); **PREP (Preparation)**
(preparation and diffraction behavior of photorefractive)

IT **501116-22-9P**
RL: PNU (Preparation, unclassified); PRP (Properties); **PREP (Preparation)**
(preparation and diffraction behavior of photorefractive)

RN 501116-22-9 HCAPLUS

CN 10H-Phenothiazine-3,7-dicarboxaldehyde, 10-(2-ethylhexyl)-, bis(diphenylhydrazone) (9CI) (CA INDEX NAME)



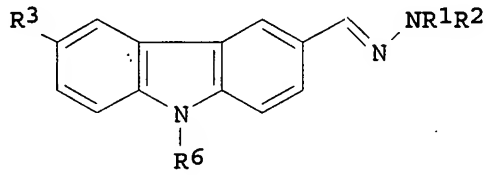
RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L66 ANSWER 10 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN

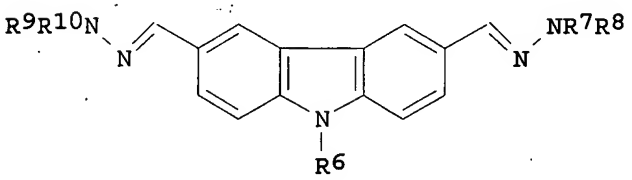
AN 2001:713694 HCAPLUS
DN 135:249443
TI Organophotoreceptors for electrophotography comprising hydrazone **charge** transport compounds
IN Jubran, Nusrallah; Tokarski, Zbigniew; Smith, Terrance P.
PA Imation Corp., USA
SO PCT Int. Appl., 38 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2001071430	A1	20010927	WO 2000-US21553	20000807 <--
W: JP, KR				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 6340548	B1	20020122	US 2000-526789	20000316 <--
PRAI US 2000-526789	A	20000316 <--		

OS MARPAT 135:249443
GI



I



II

AB The invention features an organic photoreceptor that includes: (a) a **charge** transport compound I (R1,2 = H, C1-6 alkyl, or aryl group; R3= hydrazone H2C=N-NR4R5 (R4,5 = H, C1-6 alkyl, aryl); R6= aryl group; alkyl; a group -(CH2)n-Ar (n ≥ 3, Ar = aryl group); or carbazole group II (R7-10= H, C1-C6 alkyl group), or aryl group; n ≥ 3; and one or more methylene groups is optionally substituted with a heteroatom); (b) a **charge** generating compound; and (c) an electroconductive substrate. These organic photoreceptors can be used successfully with liquid toners to produce high quality images.

IC ICM G03G005-06
ICS C07D209-00
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST electrophotog org photoreceptor hydrazone **charge** transport compd
IT Electrophotographic photoconductors (photoreceptors)
(hydrazone **charge** transport compound in electrophotog. organophotoreceptors)
IT 56-37-1, Benzyltriethyl ammonium chloride 86-28-2, N-Ethylcarbazole 86-74-8, Carbazole 112-71-0, 1-Bromotetradecane 143-15-7, 1-Bromododecane 618-40-6, N-Methyl-N-phenylhydrazine 629-04-9, 1-Bromoheptane 637-59-2, 1-Bromo-3-phenylpropane 765-09-3,

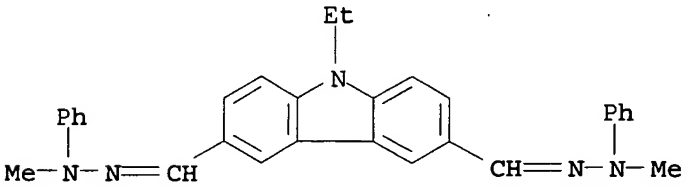
1-Bromotridecane 10025-87-3, Phosphoric trichloride 18908-66-2, 2-Ethylhexylbromide 19249-03-7, Triethylene glycol di-p-tosylate 187148-77-2, N-2-Ethylhexylcarbazole 360789-05-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(hydrazone **charge** transport compound in electrophotog. organophotoreceptors)

IT 4041-20-7P, N-Heptylcarbazole 4101-68-2P, 1,10-Dibromodecane 20863-23-4P, N-Dodecyl carbazole 20863-25-6P, N-Tetradecylcarbazole 60834-42-6P 70207-46-4P 110045-73-3P 169051-20-1P, N-2-Ethylhexyl-3,6-diformyl carbazole 173483-07-3P 183275-89-0P 197297-44-2P 360789-03-3P 360789-04-4P 360789-06-6P 360789-07-7P 360789-08-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(hydrazone **charge** transport compound in electrophotog. organophotoreceptors)

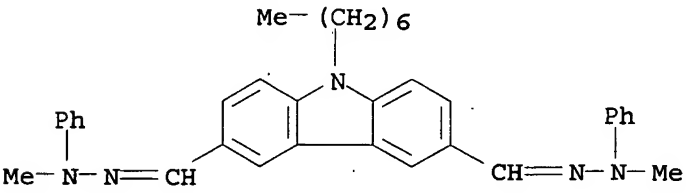
IT **95640-40-7P 360788-93-8P 360788-94-9P 360788-95-0P 360788-96-1P 360788-97-2P 360788-98-3P** 360788-99-4P 360789-00-0P **360789-01-1P 360789-02-2P**
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(hydrazone **charge** transport compound in electrophotog. organophotoreceptors)

IT **95640-40-7P 360788-93-8P 360788-94-9P 360788-95-0P 360788-96-1P 360788-97-2P 360788-98-3P 360789-01-1P 360789-02-2P**
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(hydrazone **charge** transport compound in electrophotog. organophotoreceptors)

RN 95640-40-7 HCAPLUS
CN 9H-Carbazole-3,6-dicarboxaldehyde, 9-ethyl-, bis(methylphenylhydrazone) (9CI) (CA INDEX NAME)

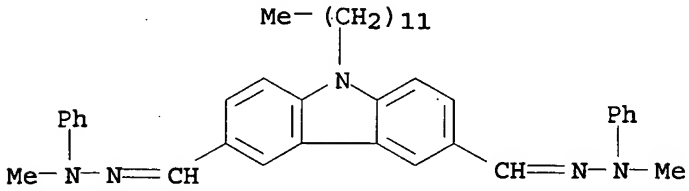


RN 360788-93-8 HCAPLUS
CN 9H-Carbazole-3,6-dicarboxaldehyde, 9-heptyl-, bis(methylphenylhydrazone) (9CI) (CA INDEX NAME)

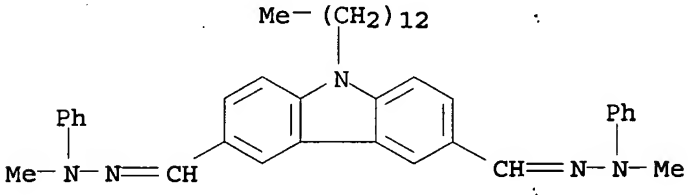


RN 360788-94-9 HCAPLUS

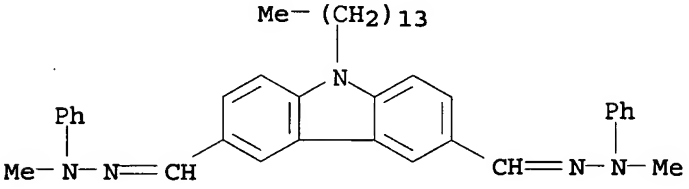
CN 9H-Carbazole-3,6-dicarboxaldehyde, 9-dodecyl-, bis(methylphenylhydrazone) (9CI) (CA INDEX NAME)



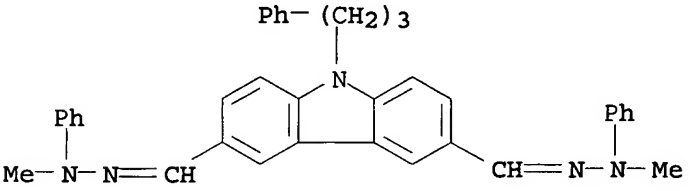
RN 360788-95-0 HCAPLUS
CN 9H-Carbazole-3,6-dicarboxaldehyde, 9-tridecyl-, bis(methylphenylhydrazone) (9CI) (CA INDEX NAME)



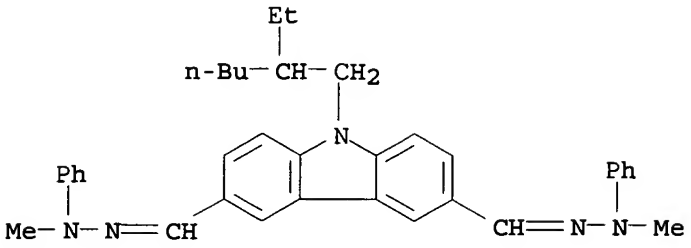
RN 360788-96-1 HCAPLUS
CN 9H-Carbazole-3,6-dicarboxaldehyde, 9-tetradecyl-, bis(methylphenylhydrazone) (9CI) (CA INDEX NAME)



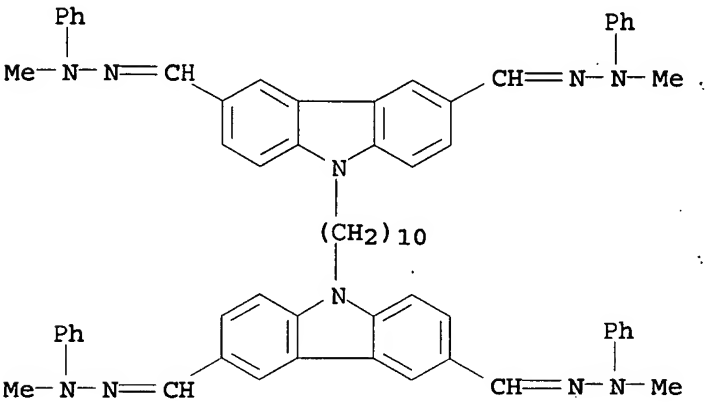
RN 360788-97-2 HCAPLUS
CN 9H-Carbazole-3,6-dicarboxaldehyde, 9-(3-phenylpropyl)-, bis(methylphenylhydrazone) (9CI) (CA INDEX NAME)



RN 360788-98-3 HCAPLUS
CN 9H-Carbazole-3,6-dicarboxaldehyde, 9-(2-ethylhexyl)-, bis(methylphenylhydrazone) (9CI) (CA INDEX NAME)

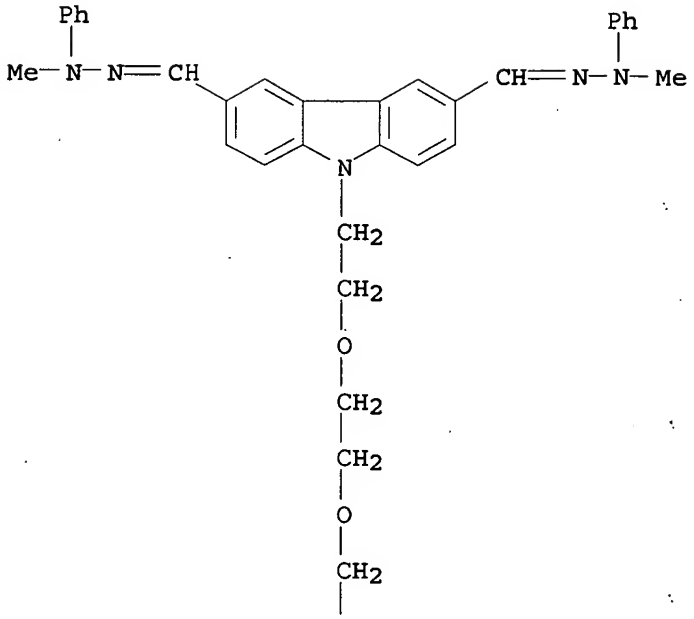


RN 360789-01-1 HCAPLUS
CN 9H-Carbazole-3,6-dicarboxaldehyde, 9,9'-(1,10-decanediyl)bis-, tetrakis(methylphenylhydrazone) (9CI) (CA INDEX NAME)

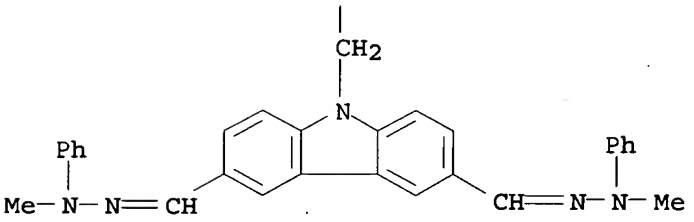


RN 360789-02-2 HCAPLUS
CN 9H-Carbazole-3,6-dicarboxaldehyde, 9,9'-[1,2-ethanediylbis(oxy-2,1-ethanediyl)]bis-, tetrakis(methylphenylhydrazone) (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L66 ANSWER 11 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2001:141038 HCAPLUS
DN 134:320146
TI Double-level "orthogonal" dynamic combinatorial libraries on transition metal template
AU Goral, Vasiliy; Nelen, Marina I.; Eliseev, Alexey V.; Lehn, Jean-Marie
CS Department of Chemistry, State University of New York, Buffalo, NY, 14260, USA
SO Proceedings of the National Academy of Sciences of the United States of America (**2001**), 98(4), 1347-1352
CODEN: PNASA6; ISSN: 0027-8424
PB National Academy of Sciences
DT Journal
LA English
OS CASREACT 134:320146

AB Dynamic combinatorial libraries are mixts. of compds. that exist in a dynamic equilibrium and can be driven to compositional self adaptation via selective binding of a specific assembly of certain components to a mol. target. The authors present an extension of this initial concept to dynamic libraries that consists of two levels, the first formed by the coordination of terpyridine-based ligands to the transition metal template, and the second, by the imine formation with the aldehyde substituents on the terpyridine moieties. Dialdehyde 5,5'-carbaldehyde-2,2':6',2''-terpyridine (7) was synthesized, converted into a variety of ligands, oxime ethers L11-L33 and acyl hydrazones L44-L77, and subsequently into corresponding Co complexes. A typical complex, Co(L22)22+ is shown to engage in rapid exchange with a competing ligand L11 and with another complex, Co(L22)22+ in 30% MeCN/H2O at pH 7.0 and 25°. The exchange in the corresponding Co(III) complexes is much slower. Imine exchange in the acyl hydrazone complexes (L44-L77) is strongly controlled by pH and temperature The two types of exchange, ligand and imine, can thus be used as independent equilibrium processes controlled by different types of external intervention, i.e., via oxidation/reduction of the metal template and/or change in the pH/temperature of the medium. The resulting double-level dynamic libraries are therefore named orthogonal, in similarity with the orthogonal protecting groups in organic synthesis. Sample libraries of this type were synthesized and showed the complete expected set of components in electrospray ionization MS.

CC 78-7 (Inorganic Chemicals and Reactions)

ST combinatorial library double level orthogonal cobalt terpyridine complex; cobalt terpyridine acylhydrazone prepn dynamic combinatorial library; transition metal template orthogonal dynamic combinatorial library

IT Oximes
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(O-alkyl; preparation and complexation with cobalt ion for preparation of double-level orthogonal combinatorial library)

IT Hydrazones
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(acyl; preparation and complexation with cobalt ion for preparation of double-level orthogonal combinatorial library)

IT Substitution reaction kinetics
(coordinative; ligand and imine exchange in dynamic double-level orthogonal combinatorial library of cobalt complexes of terpyridine-based ligands with acylhydrazone substituents)

IT Combinatorial library
(double-level orthogonal; from coordination of terpyridine-based ligands to cobalt template and from imine formation with aldehyde substituents on terpyridine moieties)

IT Imination kinetics
(transimination; ligand and imine exchange in dynamic double-level orthogonal combinatorial library of cobalt complexes of terpyridine-based ligands with acylhydrazone substituents)

IT Combinatorial chemistry
(via ligand exchange of terpyridine-based ligands on cobalt template and from imine exchange with acylhydrazone substituents on terpyridine moieties)

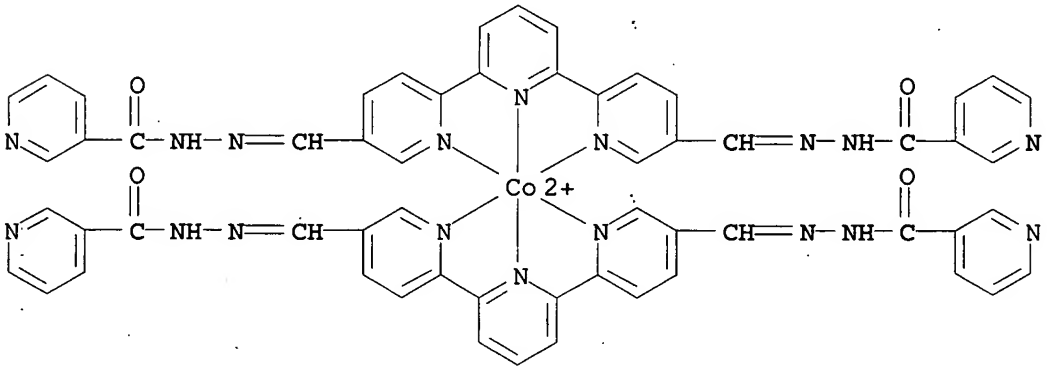
IT 553-53-7, Nicotinic hydrazide 937-39-3 1068-57-1, Acetylhydrazide 5351-23-5, 4-Hydroxybenzoylhydrazide
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation with diformylterpyridine in preparation of dynamic double-level orthogonal combinatorial library of cobalt terpyridine

complexes)
IT 82682-61-9, 2,6-Bis(trimethylstannyl)pyridine
RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling with bromopyridyldioxolane)
IT 624-28-2, 2,5-Dibromopyridine
RL: RCT (Reactant); RACT (Reactant or reagent)
(formylation of)
IT 2687-43-6, O-Benzylhydroxylamine hydrochloride 3332-29-4, O-Ethylhydroxylamine hydrochloride 4229-44-1, Methylhydroxylamine hydrochloride
RL: RCT (Reactant); RACT (Reactant or reagent)
(imination of diformylterpyridine)
IT 149806-06-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and aldehyde protection with propanediol)
IT 334987-32-5P 334987-33-6P 334987-34-7P 334987-35-8P 334987-36-9P 334987-37-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and complexation with cobalt ion for preparation of double-level
orthogonal combinatorial library)
IT 334987-30-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and coupling with bis(trimethylstannyl)pyridine)
IT 334987-31-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and deprotection to give dialdehyde)
IT 334987-50-7P 334987-56-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and peroxide oxidation of)
IT 334987-55-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation in dynamic double-level orthogonal combinatorial library of cobalt complexes of terpyridine-based ligands with acylhydrazone substituents)
IT 334987-39-2P 334987-41-6P **334987-47-2P** 334987-49-4P 334987-52-9P 334987-54-1P
RL: RCT (Reactant); SPN (Synthetic preparation); **PREP (Preparation)**; RACT (Reactant or reagent)
(preparation of dynamic double-level orthogonal combinatorial library of cobalt complexes of terpyridine-based ligands with acylhydrazone substituents)
IT 334987-43-8P 334987-45-0P
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of dynamic double-level orthogonal combinatorial library of cobalt complexes of terpyridine-based ligands with acylhydrazone substituents and kinetics of imine exchange)
IT 228864-57-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation, condensation with O-alkyl hydroxylamines or acylhydrazide, and reactions in dynamic double-level orthogonal combinatorial library of cobalt terpyridine complexes)

IT **334987-47-2P**
RL: RCT (Reactant); SPN (Synthetic preparation); **PREP** (**Preparation**); RACT (Reactant or reagent)
(preparation of dynamic double-level orthogonal combinatorial library of cobalt complexes of terpyridine-based ligands with acylhydrazone substituents)
RN 334987-47-2 HCAPLUS
CN Cobalt(2+), bis[3-pyridinecarboxylic acid [([2,2':6',2''-terpyridine]-5,5''-diyl-κN1,κN1',κN1'')dimethylidyne]dihydrazide]-, (OC-6-1'2)-, bis[hexafluorophosphate(1-)] (9CI) (CA INDEX NAME)

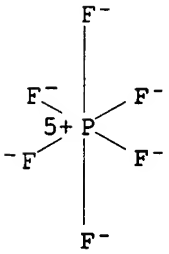
CM 1

CRN 334987-46-1
CMF C58 H42 Co N18 O4
CCI CCS



CM 2

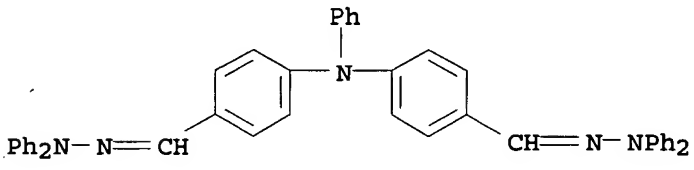
CRN 16919-18-9
CMF F6 P
CCI CCS



RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L66 ANSWER 12 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2000:60450 HCAPLUS
DN 132:286199
TI Synthesis of some hydrazone compounds as **charge**-transporting agents

AU Chen, Zhaobin; Zhang, Zhao; Miao, Xiaobin; Liu, Yufang; Bai, Fenglian; Mo, Yiming; Lu, Kaijuan; Wang, Zhuting
CS Department of Chemistry, Shanxi University, Taiyuan, 030006, Peop. Rep. China
SO Gongneng Cailiao (**1999**), 30(6), 668-669, 672
CODEN: GOCAEA; ISSN: 1001-9731
PB Gongneng Cailiao Bianjibu
DT Journal
LA Chinese
AB 4-Dimethylaminobenzaldehyde diphenylhydrazone, 4-diphenylaminobenzaldehyde diphenylhydrazone, and 4,4'-phenyliminobisbenzaldehyde bis(diphenylthydrazone) were synthesized from diphenylamine, via N-nitrosodiphenylamine and N,N-diphenylhydrazine, and 4-dimethylaminobenzaldehyde, 4- diphenylaminobenzaldehyde, and 4,4'-phenyliminobisbenzaldehyde, resp., and details of the preparative procedures are given. The hydrazone compds. were used as **charge**-transporting agents for electrophotog. photoreceptors.
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 76
ST hydrazone **charge** transporting agent electrophotog photoreceptor
IT Electrophotographic photoconductors (photoreceptors)
(synthesis of hydrazone **charge**-transporting agents for)
IT 86-30-6P, N-Nitroso-diphenylamine 530-50-7P, N,N-Diphenylhydrazine
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction in synthesis of hydrazones as **charge**-transporting agents for electrophotog photoreceptors)
IT 100-10-7, 4-Dimethylaminobenzaldehyde 122-39-4, Diphenylamine, reactions 4181-05-9, 4-Diphenylaminobenzaldehyde 53566-95-3, 4,4'-Phenyliminobisbenzaldehyde
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction in synthesis of hydrazones as **charge**-transporting agents for electrophotog photoreceptors)
IT 71135-02-9P 82532-76-1P, 4-Diphenylaminobenzaldehyde diphenylhydrazone **87755-91-7P**
RL: DEV (Device component use); SPN (Synthetic preparation); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(synthesis and use as **charge**-transporting agent for)
IT **87755-91-7P**
RL: DEV (Device component use); SPN (Synthetic preparation); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(synthesis and use as **charge**-transporting agent for)
RN 87755-91-7 HCAPLUS
CN Benzaldehyde, 4,4'-(phenylimino)bis-, bis(diphenylhydrazone) (9CI) (CA INDEX NAME)

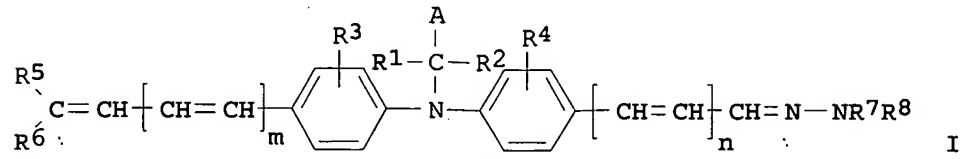


L66 ANSWER 13 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN

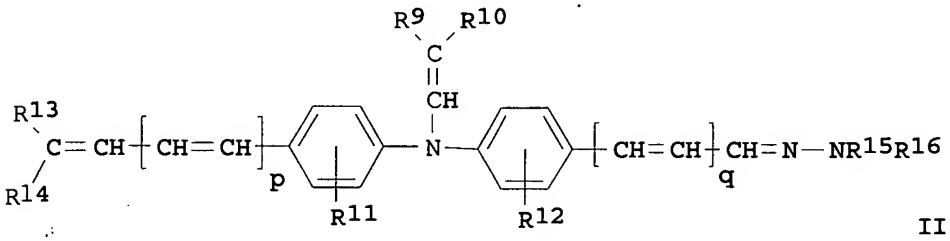
AN 1998:631979 HCAPLUS
DN 129:308511
TI Organic photoconductor containing hydrazone and electrophotographic photoreceptor
IN Horiuchi, Tamotsu; Kodera, Tatsuya
PA Mitsubishi Paper Mills, Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 40 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 10260544	A	19980929	JP 1997-65793	19970319 <--
JP 3649846	B2	20050518		
PRAI JP 1997-65793		19970319 <--		

OS MARPAT 129:308511
GI



I



II

AB The material contains a hydrazone I or II [A = (substituted) alkenyl, (substituted) cycloalkenyl; R1, R2 = H, (substituted) alkyl, (substituted) alkenyl; R3, R4, R11, R12 = H, (substituted) alkyl, (substituted) alkoxy, halo; R5, R6, R13, R14 = H, (substituted) alkyl, (substituted) aryl, (substituted) heterocycles; R7, R8, R15, R16 = (substituted) alkyl, (substituted) alkenyl, (substituted) aralkyl, (substituted) aryl, (substituted) heterocycles; R9, R10 = H, (substituted) alkyl, (substituted) aryl, (substituted) heterocycle; m, n, p, q = 0-2]. The photoreceptor comprises a photosensitive layer containing I or II as a **charge**-transporting agent on an elec. conductive support. The photoreceptor shows high sensitivity and endurance.

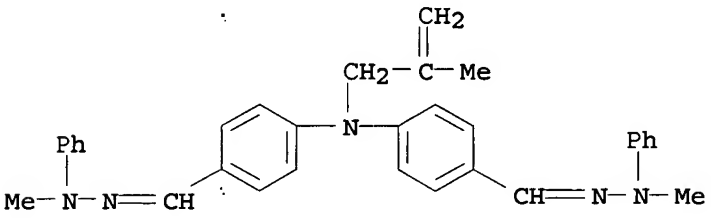
IC ICM G03G005-06
ICS G03G005-06
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST photoconductor hydrazone **charge** transporting agent
IT **135979-49-6P** 207669-80-5P **212620-62-7P**
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(electrophotog. photoconductor using hydrazone **charge**-transporting agent)
IT 185129-51-5 214414-94-5 214414-95-6 214414-96-7 214414-97-8
214414-98-9 214414-99-0 214415-00-6 214415-01-7 214415-03-9

214415-04-0 214415-05-1 214415-06-2
RL: TEM (Technical or engineered material use); USES (Uses)
(electrophotog. photoconductor using hydrazone **charge** -transporting agent)

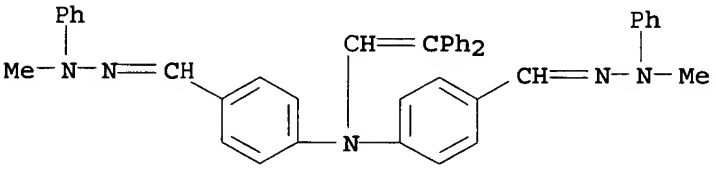
IT 618-40-6 213883-98-8 213883-99-9 214414-93-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(electrophotog. photoconductor using hydrazone **charge** -transporting agent from)

IT **135979-49-6P 212620-62-7P**
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(electrophotog. photoconductor using hydrazone **charge** -transporting agent)

RN 135979-49-6 HCAPLUS
CN Benzaldehyde, 4,4'-[(2-methyl-2-propenyl)imino]bis-, bis(methylphenylhydrazone) (9CI) (CA INDEX NAME)



RN 212620-62-7 HCAPLUS
CN Benzaldehyde, 4,4'-[(2,2-diphenylethenyl)imino]bis-, bis(methylphenylhydrazone) (9CI) (CA INDEX NAME)



L66 ANSWER 14 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 1998:600749 HCAPLUS
DN 129:316171
TI Bis-Cationic heteroaromatics as macrofilaricides: synthesis of bis-amidine and bis-guanylhydrazone derivatives of substituted Imidazo[1,2-a]pyridines
AU Sundberg, Richard J.; Biswas, Sujay; Murthi, Krishna Kumar; Rowe, Donna; McCall, John W.; Dzimianski, Michael T.
CS Department of Chemistry, University of Virginia, Charlottesville, VA, 22901, USA
SO Journal of Medicinal Chemistry (**1998**), 41(22), 4317-4328
CODEN: JMCMAR; ISSN: 0022-2623
PB American Chemical Society
DT Journal
LA English
AB A series of guanylhydrazone, amidine, and hydrazone derivs. of 2-phenylimidazo[1,2-a]pyridine have been prepared and evaluated for macrofilarial activity against Acanthocheilonema viteae and Brugia pahangi in jirds. Compds. with 4',6-bis-substitution by cyclic guanylhydrazone

groups show activity. 4',6-Bis-amidines show some activity but are more toxic; 4'- or 6-monosubstituted compds. are inactive. 2,6-Bis-substituted compds. lacking the Ph ring are inactive. 4',6-Bis-substituted compds. having addnl. double bonds inserted between the heterocyclic ring and the Ph ring or between the substituent and the ring system show reduced activity.

CC 28-9 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 1

ST imidazopyridine bisamidine bisguanylhydrazone prepn macrofilaricide

IT Anthelmintics
Antiviral agents
(preparation and macrofilaricidal activity of bis-amidine and bis-guanylhydrazone derivs. of imidazopyridines)

IT 214958-41-5P 214958-42-6P 214958-43-7P 214958-44-8P 214958-45-9P
214958-46-0P 214958-47-1P 214958-48-2P 214958-49-3P 214958-50-6P
214958-51-7P 214958-52-8P 214958-53-9P 214958-54-0P 214958-55-1P
214958-56-2P 214958-57-3P 214958-58-4P 214958-59-5P 214958-60-8P
214958-61-9P 214958-62-0P 214958-63-1P 214958-64-2P 214958-65-3P
214958-66-4P 214958-67-5P 214958-68-6P **214958-69-7P**
214958-70-0P 214958-71-1P 214958-72-2P 214958-74-4P
214958-75-5P 214958-76-6P 214958-77-7P 214958-78-8P 214958-79-9P
214958-80-2P 214958-81-3P 214958-82-4P **214958-84-6P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); **PREP (Preparation)**
(preparation and macrofilaricidal activity of bis-amidine and bis-guanylhydrazone derivs. of imidazopyridines)

IT 70-11-1, 2-Bromoacetophenone 70-23-5, Ethyl bromopyruvate 75-31-0, Isopropylamine, reactions 99-73-0, 2,4'-Dibromoacetophenone 109-76-2, 1,3-Propanediamine 110-91-8, Morpholine, reactions 123-75-1, Pyrrolidine, reactions 504-29-0, 2-Aminopyridine 1072-97-5, 2-Amino-5-bromopyridine 1552-41-6, Diethyl 4-cyanobenzylphosphonate 2537-48-6 10024-89-2, Morpholine hydrochloride 20511-12-0, 2-Amino-5-iodopyridine 25150-61-2, Pyrrolidine hydrochloride 31827-94-8 50398-09-9, 1-Methylpiperazine hydrochloride 93755-84-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation and macrofilaricidal activity of bis-amidine and bis-guanylhydrazone derivs. of imidazopyridines)

IT 156-57-0P, 2-Aminoethanethiol hydrochloride 4214-73-7P 38224-37-2P 38224-38-3P 55843-91-9P 61982-63-6P 118000-48-9P 118001-57-3P 149770-58-1P 214958-27-7P 214958-28-8P 214958-29-9P 214958-31-3P 214958-32-4P 214958-33-5P 214958-35-7P 214958-36-8P 214958-37-9P 214958-39-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and macrofilaricidal activity of bis-amidine and bis-guanylhydrazone derivs. of imidazopyridines)

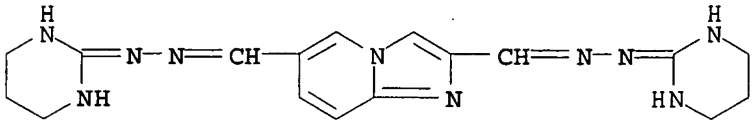
IT 214958-30-2P 214958-34-6P 214958-38-0P 214958-40-4P 214958-73-3P 214958-83-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and macrofilaricidal activity of bis-amidine and bis-guanylhydrazone derivs. of imidazopyridines)

IT **214958-69-7P 214958-70-0P 214958-84-6P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); **PREP (Preparation)**
(preparation and macrofilaricidal activity of bis-amidine and bis-guanylhydrazone derivs. of imidazopyridines)

RN 214958-69-7 HCAPLUS

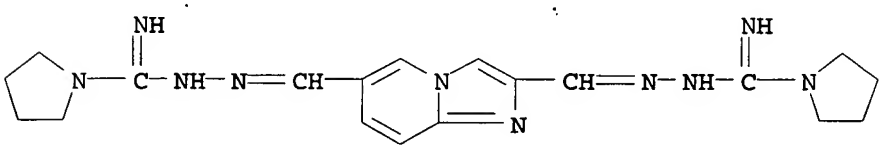
CN Imidazo[1,2-a]pyridine-2,6-dicarboxaldehyde, bis[(1,4,5,6-tetrahydro-2-

pyrimidinyl)hydrazone], trihydrobromide (9CI) (CA INDEX NAME)



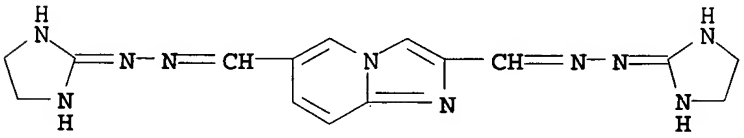
●3 HBr

RN 214958-70-0 HCAPLUS
CN 1-Pyrrolidinecarboximidic acid, (imidazo[1,2-a]pyridine-2,6-diyldimethylidyne)dihydrazide, trihydrobromide (9CI) (CA INDEX NAME)



●3 HBr

RN 214958-84-6 HCAPLUS
CN Imidazo[1,2-a]pyridine-2,6-dicarboxaldehyde, bis[(4,5-dihydro-1H-imidazol-2-yl)hydrazone], trihydrobromide (9CI) (CA INDEX NAME)



●3 HBr

RE.CNT 82 THERE ARE 82 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L66 ANSWER 15 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 1998:594738 HCAPLUS
DN 129:223238
TI Electrophotographic photoreceptor containing phthalocyanine derivative and styryl or hydrazone compound
IN Kodera, Tatsuya; Nagamura, Hideki; Horiuchi, Tamotsu
PA Mitsubishi Paper Mills, Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 40 pp.
CODEN: JKXXAF
DT Patent
LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10239875	A	19980911	JP 1997-47765	19970303 <--
PRAI	JP 1997-47765		19970303 <--		

OS MARPAT 129:223238

AB The title photoreceptor comprises a conductive support with a coating of a photosensitive layer containing ≥1 phthalocyanine compound as a **charge**-generating agent and, as a **charge**-transporting agent, ≥1 styryl compound R3CR4:CHN[A1(CH:CH)mCR1:CR7R8]2 or ≥1 hydrazone compound R5CR6:CHN[A2(CH:CH)nCR2:NNR9R10]2 [R1, R2 = H, alkyl, aryl; R3-8 = H, alkyl, alkenyl, aralkyl, aryl (these groups may be substituted); R9, R10 = alkyl, alkenyl, aralkyl, aryl (these groups may be substituted), R3and R4, R5 and R6, R7 and R8 or R9 and R10 may form a ring; A1, A2 = divalent aromatic ring or atoms required to form a heterocycle along with the N atoms (these rings may be substituted); m, n = 0 or 1]. The photoreceptor shows high photosensitivity and durability in repeated use.

IC ICM G03G005-06
ICS G03G005-06

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST phthalocyanine electrophotog **charge** generating agent; hydrazone compd **charge** transporting agent electrophotog; styryl compd **charge** transporting agent electrophotog

IT Electrophotographic photoconductors (photoreceptors)
(electrophotog. photoreceptor containing phthalocyanine **charge**-generating agent and styryl or hydrazone compound **charge**-transporting agent)

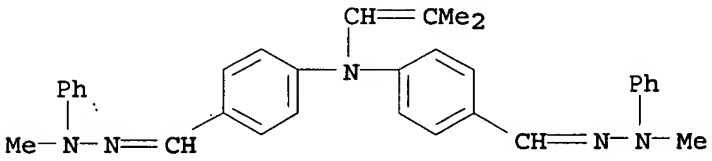
IT 130662-90-7 130662-91-8 131302-40-4 131302-41-5 212620-40-1
212620-41-2 212620-42-3 212620-43-4 212620-44-5 212620-45-6
212620-46-7 212620-47-8 212620-48-9 212620-49-0 212620-50-3
212620-51-4 212620-52-5 212620-53-6 212620-56-9 212620-57-0
212620-58-1 212620-59-2 212620-60-5 212620-61-6 212620-62-7
212620-63-8 212620-64-9 212620-65-0 212620-66-1 212620-67-2
212620-68-3 212620-69-4 212620-70-7
RL: DEV (Device component use); USES (Uses)
(electrophotog. photoreceptor containing phthalocyanine **charge**-generating agent and styryl or hydrazone compound **charge**-transporting agent)

IT 130662-96-3P **131302-14-2P**
RL: DEV (Device component use); PNU (Preparation, unclassified); **PREP (Preparation)**; USES (Uses)
(electrophotog. photoreceptor containing phthalocyanine **charge**-generating agent and styryl or hydrazone compound **charge**-transporting agent)

IT 147-14-8, Copper phthalocyanine 574-93-6, Phthalocyanine 13930-88-6, Vanadyl phthalocyanine 14154-42-8 19631-19-7, Chloroindium phthalocyanine 19717-79-4, Chlorogallium phthalocyanine 55948-33-9, Diphenoxygermanium phthalocyanine 63371-84-6, Hydroxygallium phthalocyanine
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(electrophotog. photoreceptor containing phthalocyanine compound with specific diffraction spectrum as **charge**-generating agent)

IT 26201-32-1P, Titanyl phthalocyanine
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PNU (Preparation, unclassified); PREP (Preparation); PROC (Process); USES (Uses)
(electrophotog. photoreceptor containing phthalocyanine compound with

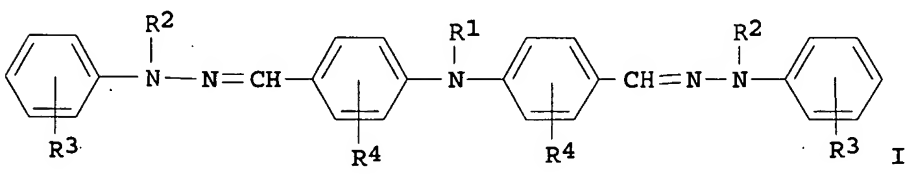
specific diffraction spectrum as **charge**-generating agent)
IT 135979-49-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of hydrazone compound **charge**-transporting agent)
IT 172905-12-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of styryl compound **charge**-transporting agent)
IT 3468-11-9, 1,3-Diiminoisoindoline 5593-70-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of titanylphthalocyanine)
IT **131302-14-2P**
RL: DEV (Device component use); PNU (Preparation, unclassified); **PREP (Preparation)**; USES (Uses)
(electrophotog. photoreceptor containing phthalocyanine **charge**-generating agent and styryl or hydrazone compound **charge**-transporting agent)
RN 131302-14-2 HCAPLUS
CN Benzaldehyde, 4,4'-[(2-methyl-1-propenyl)imino]bis-, bis(methylphenylhydrazone) (9CI) (CA INDEX NAME)



L66 ANSWER 16 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 1998:259852 HCAPLUS
DN 128:328759
TI Electrophotographic photoreceptors containing phthalocyanine **charge**-generating substance and hydrazone **charge**-transporting substance
IN Taniguchi, Satoko; Horiuchi, Tamotsu
PA Mitsubishi Paper Mills, Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 44 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 10111578	A	19980428	JP 1996-266458	19961008 <--
PRAI JP 1996-266458		19961008 <--		

OS MARPAT 128:328759
GI



I

AB The title photoreceptors comprise a conductive support coated with a single layer-type photosensitive layer containing a phthalocyanine **charge**-generating substance and a hydrazone **charge** -transporting substance I [R1 = C≥5 alkyl, aryl, aralkyl, heterocyclyl, CR5R6R7; R2 = alkyl, alkenyl, aryl, aralkyl, heterocyclyl; R3, R4 = H, alkyl, alkoxy, halo; R5, R6 = H, alkyl; R7 = alkenyl]. The photoreceptors show high **charge** potential, photosensitivity, and durability in repeated use.

IC ICM G03G005-06
ICS G03G005-06

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST electrophotog photoreceptor phthalocyanine hydrazone **charge** transporter

IT Electrophotographic photoconductors (photoreceptors)
(electrophotog. photoreceptor containing phthalocyanine **charge** -generating substance and hydrazone **charge**-transporting substance)

IT 87755-90-6 87755-91-7 151107-44-7 153534-61-3 172905-12-3 199471-43-7 207128-91-4 207128-94-7 207128-96-9 207128-98-1 207128-99-2 207129-00-8 207129-01-9 207129-02-0 207129-03-1 207129-04-2
RL: DEV (Device component use); USES (Uses)
(electrophotog. photoreceptor containing phthalocyanine **charge** -generating substance and hydrazone **charge**-transporting substance)

IT **135979-49-6P 199471-41-5P**
RL: DEV (Device component use); PNU (Preparation, unclassified); **PREP (Preparation)**; USES (Uses)
(electrophotog. photoreceptor containing phthalocyanine **charge** -generating substance and hydrazone **charge**-transporting substance)

IT 26201-32-1P
RL: DEV (Device component use); PNU (Preparation, unclassified); PRP (Properties); PREP (Preparation); USES (Uses)
(electrophotog. photoreceptor containing phthalocyanine **charge** -generating substance and hydrazone **charge**-transporting substance)

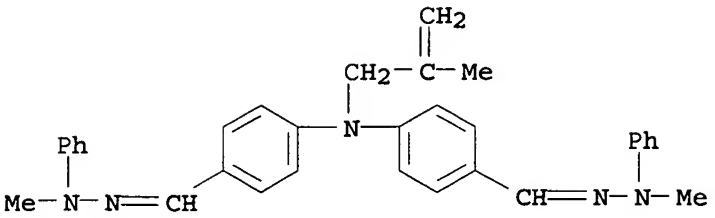
IT 147-14-8, Copper phthalocyanine 574-93-6, Phthalocyanine 13930-88-6 14154-42-8 19631-19-7, Chloroindium phthalocyanine 19717-79-4, Chlorogallium phthalocyanine 55948-33-9, Diphenoxygermanium phthalocyanine 63371-84-6, Hydroxygallium phthalocyanine
RL: DEV (Device component use); PRP (Properties); USES (Uses)
(electrophotog. photoreceptor containing phthalocyanine **charge** -generating substance and hydrazone **charge**-transporting substance)

IT 618-40-6 3468-11-9, 1,3-Diiminoisoindoline 207129-05-3 207129-06-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(electrophotog. photoreceptor containing phthalocyanine **charge** -generating substance and hydrazone **charge**-transporting substance)

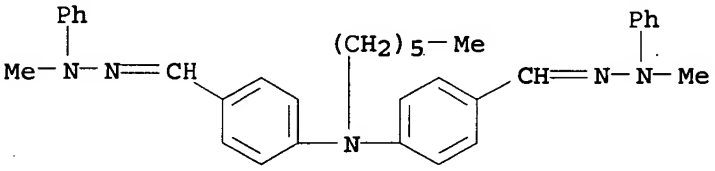
IT **135979-49-6P 199471-41-5P**
RL: DEV (Device component use); PNU (Preparation, unclassified); **PREP (Preparation)**; USES (Uses)
(electrophotog. photoreceptor containing phthalocyanine **charge** -generating substance and hydrazone **charge**-transporting substance)

RN 135979-49-6 HCAPLUS

CN Benzaldehyde, 4,4'-[(2-methyl-2-propenyl)imino]bis-, bis(methylphenylhydrazone) (9CI) (CA INDEX NAME)



RN 199471-41-5 HCAPLUS
CN Benzaldehyde, 4,4'-(hexylimino)bis-, bis(methylphenylhydrazone) (9CI) (CA INDEX NAME)



L66 ANSWER 17 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 1997:443729 HCAPLUS
DN 127:190564
TI Cleavage of (octaethyl-2,3-dihydroxychlorinato)nickel(II) to give the novel 2,3-dioxo-2,3-secochlorin system
AU Adams, Keith R.; Bonnett, Raymond; Burke, Philip J.; Salgado, Antonio; Valles, Maria Asuncion
CS Dep. Chem., Queen Mary and Westfield Coll., Univ. London, London, E1 4NS, UK
SO Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (**1997**), (12), 1769-1772
CODEN: JCPRB4; ISSN: 0300-922X
PB Royal Society of Chemistry
DT Journal
LA English
OS CASREACT 127:190564
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Treatment of (octaethyl-2,3-dihydroxychlorinato)nickel(II) with lead tetraacetate in benzene causes cleavage of the 2-3 bond to give the nickel(II) 2,3-secochlorin-2,3-dione system I, a previously unknown structural type. The structure is established by elemental anal. and spectroscopic methods, and confirmed by X-ray anal. The dione gives a bis(2,4-dinitrophenylhydrazone). Treatment with base causes an aldol-type condensation to occur to give the (2-oxo-2a-homoporphyrinato)nickel(II) II. This substance is rather unreactive, and it has not been possible to prepare carbonyl derivs. This lack of reactivity is rationalized in terms of **charge** delocalization which reduces carbonyl double-bond character. These novel pathways are discussed in relation to the known

(and different) pathways of chlorophyll catabolism which have recently been uncovered.

CC 26-7 (Biomolecules and Their Synthetic Analogs)

ST octaethyldihydroxychlorinatonickel ring cleavage lead tetraacetate; dioxosecochlorin nickel complex prepn cyclocondensation; oxohomoporphyrinatonickel prepn

IT Ring opening
(ring cleavage of (octaethyl-2,3-dihydroxychlorinato)nickel with lead tetraacetate)

IT 74071-47-9 127939-91-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(ring cleavage of (octaethyl-2,3-dihydroxychlorinato)nickel with lead tetraacetate)

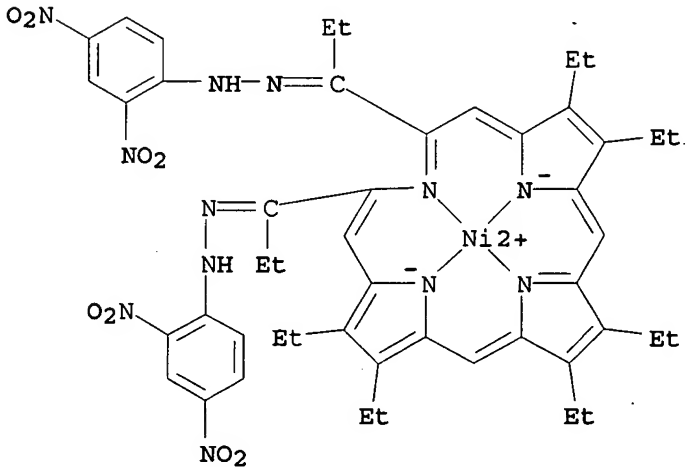
IT 156279-51-5P 156279-53-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(ring cleavage of (octaethyl-2,3-dihydroxychlorinato)nickel with lead tetraacetate)

IT 100762-96-7P 156279-52-6P **194415-23-1P**
RL: SPN (Synthetic preparation); **PREP (Preparation)**
(ring cleavage of (octaethyl-2,3-dihydroxychlorinato)nickel with lead tetraacetate)

IT **194415-23-1P**
RL: SPN (Synthetic preparation); **PREP (Preparation)**
(ring cleavage of (octaethyl-2,3-dihydroxychlorinato)nickel with lead tetraacetate)

RN 194415-23-1 HCAPLUS

CN Nickel, [[1,1'-(4,5,9,10,18,19-hexaethyl-14,20,21,22-tetraazatetracyclo[15.2.1.13,6.18,11]docosa-1,3(22),4,6,8,10,12,14,16,18-decaene-13,15-diyl-κN14,κN20,κN21,κN22)bis[1-propanone] bis[(2,4-dinitrophenyl)hydrazonato]](2-)]-, (SP-4-2)- (9CI) (CA INDEX NAME)



RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L66 ANSWER 18 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1995:375129 HCAPLUS

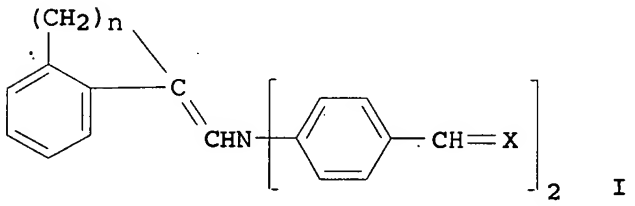
DN 123:241904

TI Electrophotographic photoreceptor

IN Kondo, Akihiro; Machino, Masaru; Masuda, Akiko; Morimoto, Kyobumi; Enomoto, Kazuhiro
PA Sharp Kk, Japan
SO Jpn. Kokai Tokkyo Koho, 30 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 06332204	A	19941202	JP 1993-120021	19930521 <--
	JP 2898170	B2	19990531		

PRAI JP 1993-120021 19930521 <--
OS MARPAT 123:241904
GI



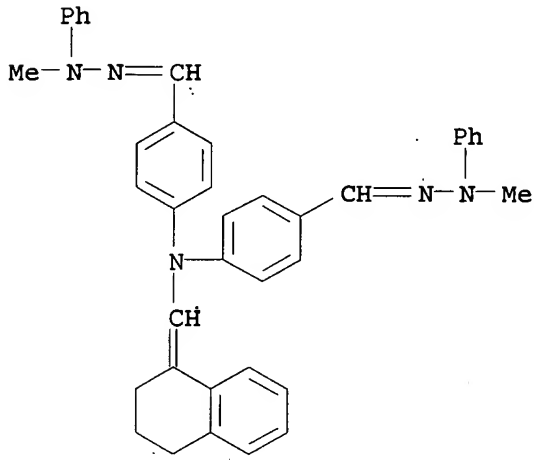
I

AB The photoreceptor contains an enamine compound I [n = 2-4, X = :NNAB, :CQR; A,B = (substituted) aryl, (substituted) heterocycle, (substituted) aralkyl, C1-5 alkyl; R,Q = (substituted) aryl, (substituted) heterocycle, (substituted) aralkyl, C1-5 alkyl, H, R≠Q≠H] in the photosensitive layer. The photoreceptor shows high sensitivity in repeated use.

IC ICM G03G005-06
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST electrophotog photoreceptor enamine compd; **charge** transporting agent electrophotog photoreceptor
IT Electrophotographic photoconductors and photoreceptors
(electrophotog. photoreceptor containing enamine compound as **charge** transporting agent)
IT 161800-86-8 161800-87-9 161800-88-0 161800-89-1 161800-90-4
161800-91-5 161800-92-6 161800-93-7 161800-94-8 161800-96-0
161800-97-1 161800-98-2 161800-99-3 161801-00-9 161801-01-0
161801-02-1 161801-03-2
RL: DEV (Device component use); USES (Uses)
(electrophotog. photoreceptor containing enamine compound as **charge** transporting agent)
IT **161800-85-7P** 161800-95-9P
RL: DEV (Device component use); PNU (Preparation, unclassified); **PREP (Preparation)**; USES (Uses)
(electrophotog. photoreceptor containing enamine compound as **charge** transporting agent)
IT 122-39-4, Diphenylamine, reactions 618-40-6, N-Phenyl-N-methyl hydrazine 1080-32-6, Diethyl benzylphosphonate 18278-24-5, 1-Formyl-1,2,3,4-tetrahydronaphthalene
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of enamine compound)
IT **161800-85-7P**
RL: DEV (Device component use); PNU (Preparation, unclassified); **PREP**

(Preparation); USES (Uses)
(electrophotog. photoreceptor containing enamine compound as **charge** transporting agent)

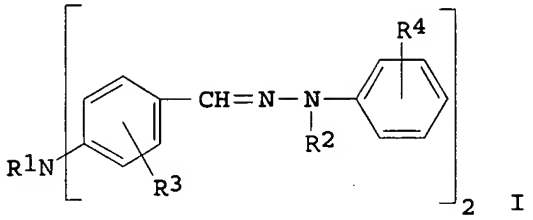
RN 161800-85-7 HCAPLUS
CN Benzaldehyde, 4,4'-[[(3,4-dihydro-1(2H)-naphthalenylidene)methyl]imino]bis-, bis(methylphenylhydrazone) (9CI) (CA INDEX NAME)



L66 ANSWER 19 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 1991:218043 HCAPLUS
DN 114:218043
TI Electrophotographic photoreceptor containing novel hydrazone compound
IN Itoh, Akira; Haino, Kozo
PA Mitsubishi Paper Mills, Ltd., Japan
SO Eur. Pat. Appl., 13 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 385185	A2	19900905	EP 1990-102876	19900214 <--
	EP 385185	A3	19901128		
	EP 385185	B1	19940518		
	R: DE, FR, GB				
	JP 02226160	A	19900907	JP 1989-48298	19890227 <--
	JP 05016025	B	19930303		
	US 5009976	A	19910423	US 1990-484836	19900226 <--
PRAI	JP 1989-48298	A	19890227 <--		

OS MARPAT 114:218043
GI



I

AB The title photoreceptor contains a **charge**-transporting agent from I [R1, R2 = alkyl, alkenyl, aralkyl, aryl, heterocyclyl; ≥1 of R1 and R2 is alkenyl; R3, R4 = H, alkyl, alkoxy, halogen]. The material has superior carrier transporting functions.

IC ICM G03G005-06

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 25

ST hydrazone **charge** transporting agent; electrophotog photoconductor hydrazone

IT Hydrazones
RL: USES (Uses)
(as **charge**-transporting agents in photoconductors)

IT Electrophotographic photoconductors
(with novel hydrazone compound as **charge**-transporting agent)

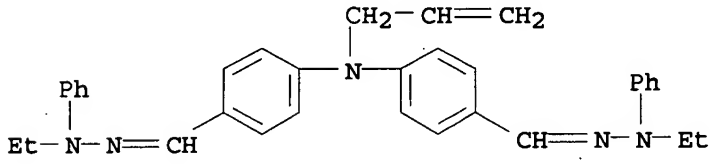
IT 133804-69-0 133804-70-3 133804-71-4 133804-72-5
RL: USES (Uses)
(as **charge**-transporting agent in photoconductors)

IT **133804-73-6P 133804-74-7P 133804-75-8P**
RL: SPN (Synthetic preparation); **PREP (Preparation)**
(preparation and use of, as **charge**-transporting agent in photoconductors)

IT **133804-73-6P 133804-74-7P 133804-75-8P**
RL: SPN (Synthetic preparation); **PREP (Preparation)**
(preparation and use of, as **charge**-transporting agent in photoconductors)

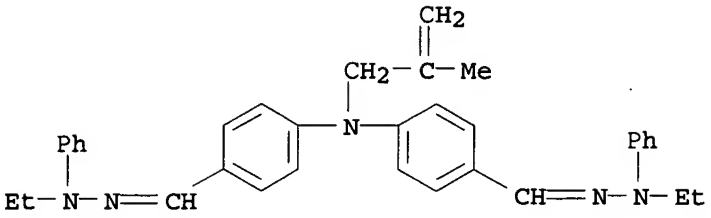
RN 133804-73-6 HCAPLUS

CN Benzaldehyde, 4,4'-(2-propenylimino)bis-, bis(ethylphenylhydrazone) (9CI) (CA INDEX NAME)

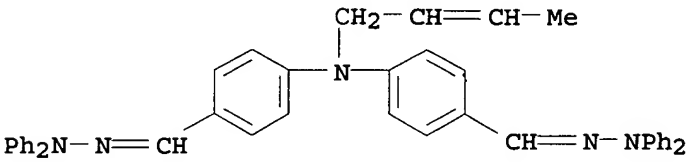


RN 133804-74-7 HCAPLUS

CN Benzaldehyde, 4,4'-[(2-methyl-2-propenyl)imino]bis-, bis(ethylphenylhydrazone) (9CI) (CA INDEX NAME)



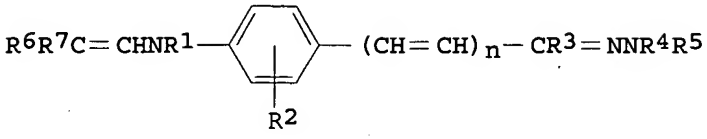
RN 133804-75-8 HCAPLUS
CN Benzaldehyde, 4,4'-(2-butenylimino)bis-, bis(diphenylhydrazone) (9CI) (CA INDEX NAME)



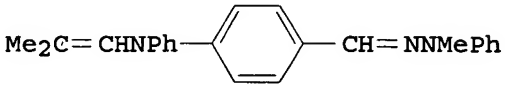
L66 ANSWER 20 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 1991:52866 HCAPLUS
DN 114:52866
TI Electrophotographic photoreceptor hydrazone-containing carrier-transporting layer
IN Haino, Kozo; Ito, Akira; Okaji, Makoto; Emoto, Kazuhiro; Kodera, Tatsuya; Takaoka, Kazuchiyo
PA Mitsubishi Petrochemical Co., Ltd., Japan
SO Ger. Offen., 49 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 4000437	A1	19900712	DE 1990-4000437	19900109 <--
	DE 4000437	C2	19990812		
	JP 02183260	A	19900717	JP 1989-3345	19890109 <--
	JP 02184856	A	19900719	JP 1989-3966	19890110 <--
	JP 02184859	A	19900719	JP 1989-3969	19890110 <--
	JP 02184860	A	19900719	JP 1989-5193	19890111 <--
	JP 02186357	A	19900720	JP 1989-6648	19890113 <--
	JP 02259766	A	19901022	JP 1989-81269	19890331 <--
	US 5089366	A	19920218	US 1990-463033	19900103 <--
PRAI	JP 1989-3345	A	19890109 <--		
	JP 1989-3966	A	19890110 <--		
	JP 1989-3969	A	19890110 <--		
	JP 1989-5193	A	19890111 <--		
	JP 1989-6648	A	19890113 <--		
	JP 1989-81269	A	19890331 <--		

OS MARPAT 114:52866
GI



I



II

AB The title photoreceptors, which have a high photosensitivity, high **charging** characteristics, essentially no change in sensitivity upon repeated use, and a stable **charge** potential, contain a hydrazone of the structure I (R1= alkyl, aralkyl, aryl, heterocyclyl, or together with the adjacent ring can form a ring system; R2=H, alkyl, or alkoxy; R3=H, alkyl, aryl; R4= alkyl, aralkyl, aryl; R5= alkyl, aralkyl, aryl, alkenyl; R6,R7=H, alkyl, aralkyl, or aryl; n= 0or1), A[(CH:CHnCR8:NNR CH:CR10R11]m (R8=H, alkyl, or aryl; R9= alkyl, aralkyl, or aryl; R10, R11=H, alkyl, aralkyl, aryl, or together can form a ring; A=an aromatic or heterocyclic ring; m=1 or 2; n=0 or 1), and R15R16C:CHN[A(CH:CH)nCR12:NNR13R14]2 (R12=R8 above; R13, R14 = R9 above; R15, R16 = R10,R11 above; A = a bond, an atom, or a group of atoms capable of forming a N-containing heterocycle; n = 0 or 1). Thus, an Al-coated polyester support was overcoated with a bisazo compound-containing composition to produce a carrier-generating layer and then with composition containing II, U-Polymer, and dichloroethane to give a carrier-transporting layer. The resultant material showed an original potential of -970 V and a potential after 1000 cycles of -950 V.

IC ICM G03G005-06
ICS G03G013-28; G03G005-043

ICA G03G005-05; G03G005-09; C07C251-80; C07D521-00; C07D209-86; C07D227-04; C07D265-34; C07D279-14; C07D333-20

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST arom hydrazone **charge** transport electrophotog

IT Electrophotographic photoconductors
(with **charge** carrier-transporting layer containing aromatic hydrazone for improved sensitivity and **charging** characteristics)

IT 130024-81-6 130024-82-7 130024-83-8 130024-84-9 130024-85-0
130024-86-1 131302-15-3 131302-16-4 131302-17-5 131302-18-6
131302-19-7 131302-20-0 131302-21-1 131302-22-2 131302-23-3
131302-24-4 131302-25-5 131302-26-6 131302-27-7 131302-28-8
131302-29-9 131302-30-2 131302-31-3 131302-32-4 131302-33-5
131302-34-6 131302-35-7 131302-36-8 131302-37-9 131302-38-0
131302-39-1 131302-40-4 131302-41-5 131302-42-6 131325-44-5
131325-45-6 131325-46-7 131325-47-8 131325-48-9
RL: USES (Uses)
(electrophotog. photoreceptor containing **charge** carrier-transporting agent from)

IT 131302-10-8P 131302-11-9P 131302-12-0P 131302-13-1P
131302-14-2P 131325-43-4P
RL: **PREP (Preparation)**
(preparation of, as **charge** carrier-transporting agent for electrophotog. photoconductor)

IT 563-47-3 5032-08-6 131302-43-7 131302-45-9

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, in preparation of hydrazone **charge** carrier-transporting agent for electrophotog.)

IT 131302-44-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with Ph hydrazine in preparation of hydrazone **charge** carrier-transporting agent for electrophotog.)

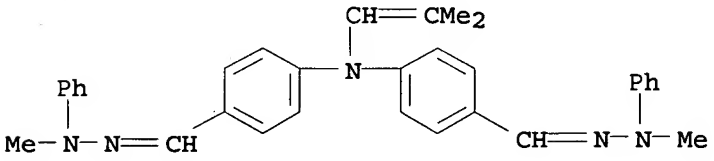
IT 100-63-0, Phenyl hydrazine 618-40-6, 1-Methyl-1-phenyl hydrazine
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with carboxaldehydes in preparation of hydrazone **charge** carrier-transporting agents for electrophotog.)

IT 117346-00-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with metal chloride in preparation of hydrazone **charge** carrier-transporting agent for electrophotog.)

IT 130662-97-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with methylphenyl hydrazine in preparation of hydrazone **charge** carrier-transporting agent for electrophotog.)

IT **131302-14-2P**
RL: **PREP (Preparation)**
(preparation of, as **charge** carrier-transporting agent for electrophotog. photoconductor)

RN 131302-14-2 HCAPLUS
CN Benzaldehyde, 4,4'-[(2-methyl-1-propenyl)imino]bis-, bis(methylphenylhydrazone) (9CI) (CA INDEX NAME)



L66 ANSWER 21 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 1990:523846 HCAPLUS
DN 113:123846
TI Electrophotographic photoreceptors using a trihydrazone compound as a **charge**-transporting agent
IN Mishima, Masayuki; Yamazaki, Harumasa; Sakuma, Tadashi; Togashi, Hiroyasu
PA Kao Corp., Japan
SO Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 01298364	A	19891201	JP 1988-129305	19880526 <--
PRAI JP 1988-129305		19880526 <--		

OS MARPAT 113:123846
GI For diagram(s), see printed CA Issue.
AB Electrophotog. photoreceptors comprise, a conductive support, a **charge**-generating layer, and a **charge**-transporting layer containing trihydrazone compds. I [R, R1-2 = H, (substituted) alkyl which may be branched, (substituted) aryl, (substituted) aralkyl, R ≠ R1 ≠ R2 = H; R3-8 = (substituted) alkyl which may be branched,

(substituted) aryl, (substituted) aralkyl, (substituted) heterocycle, R3 and R4, R5 and R6, and R7 and R8 may form a ring]. The photoreceptors exhibit good sensitivity and durability. Thus, an Al substrate was coated with a composition containing VO phthalocyanine and S-Lec BM-2 (butyral resin) and
overcoated with a composition containing I (R = R1 = R2 = Me; R3-8 = Ph) and Lexan
141-111 (polycarbonate resin) to give a photoreceptor.

IC ICM G03G005-06
ICS C09B026-02

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 25

ST electrophotog photoreceptor **charge** transporting agent; hydrazone electrophotog photoreceptor

IT Electrophotographic photoconductors
(**charge** transporting agents for, trihydrazones as, with good sensitivity and durability)

IT 574-93-6, Phthalocyanine 13930-88-6, Vanadyl phthalocyanine
RL: USES (Uses)
(**charge** generating agent, for electrophotog. photoreceptors containing trihydrazone compound as **charge**-transporting agent)

IT 129334-09-4 129334-10-7 129334-11-8 129334-12-9
RL: USES (Uses)
(**charge** transporting agent, for electrophotog. photoreceptors)

IT **129334-08-3P**
RL: SPN (Synthetic preparation); **PREP (Preparation)**
(preparation and use of, as **charge** transporting agent, for electrophotog. photoreceptors)

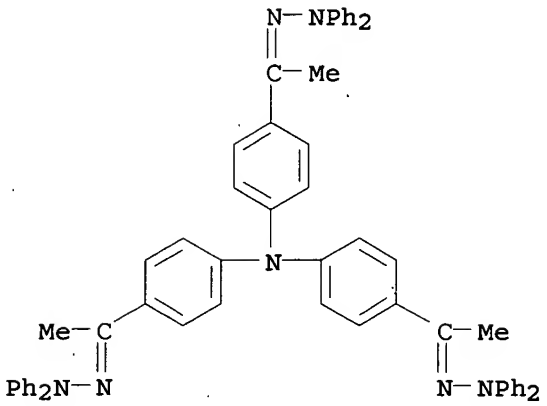
IT 530-47-2, N,N-Diphenylhydrazine hydrochloride
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with acetylphenylamine, trihydrazone compound from, for electrophotog. photoreceptors)

IT 4181-21-9, 4,4',4''-Triacetyltriphenylamine
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with phenylhydrazine, trihydrazone compound from, for electrophotog. photoreceptors)

IT **129334-08-3P**
RL: SPN (Synthetic preparation); **PREP (Preparation)**
(preparation and use of, as **charge** transporting agent, for electrophotog. photoreceptors)

RN 129334-08-3 HCAPLUS

CN Ethanone, 1,1',1''-(nitrilotri-4,1-phenylene)tris-, tris(diphenylhydrazone) (9CI) (CA INDEX NAME)



L66 ANSWER 22 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 1989:605379 HCAPLUS
DN 111:205379
TI Composite electrophotographic photoreceptor containing **charge**-transporting hydrazone
IN Goto, Satoshi; Abe, Naoto; Mitsui, Shozo; Sasaki, Osamu; Hirano, Akira
PA Konica Co., Japan
SO Jpn. Kokai Tokkyo Koho, 11 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 01033557	A	19890203	JP 1987-191420	19870729 <--
PRAI JP 1987-191420		19870729 <--		

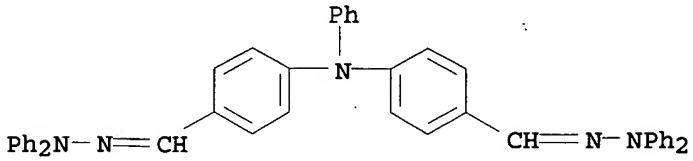
AB The title photoreceptor has a photosensitive layer containing ≥1 compound having the formula A1R1NN:CHA3N(A5)A4CH:NNR2A2 (A1, A2, A5 = aryl; A3, A4 = arylene; R1, R2 = alkyl, aryl).
IC ICM G03G005-06
ICS C09B055-00
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST electrophotog photoreceptor **charge** transporting hydrazone
IT Electrophotographic photoconductors
(composite, **charge**-transporting hydrazones for)
IT 4378-61-4, Monolite Red 2Y 86467-99-4 89547-68-2 93754-52-0 105274-85-9 121671-16-7
RL: TEM (Technical or engineered material use); USES (Uses)
(electrophotog. **charge**-generating agent)
IT 123451-09-2 123451-10-5 123451-11-6 123451-12-7 123451-13-8 123451-14-9 123451-15-0 123451-16-1 123451-17-2 123451-18-3 123451-19-4 123451-20-7
RL: USES (Uses)
(electrophotog. **charge**-transporting agent)
IT **87755-91-7P**
RL: SPN (Synthetic preparation); **PREP (Preparation)**
(preparation and use of, as electrophotog. **charge**-transporting agent)
IT 530-50-7 53566-95-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, electrophotog. **charge**-transporting hydrazone

from)

IT **87755-91-7P**
RL: SPN (Synthetic preparation); **PREP (Preparation)**
(preparation and use of, as electrophotog. **charge**-transporting agent)

RN 87755-91-7 HCAPLUS

CN Benzaldehyde, 4,4'-(phenylimino)bis-, bis(diphenylhydrazone) (9CI) (CA INDEX NAME)



L66 ANSWER 23 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1984:510610 HCAPLUS

DN 101:110610

TI Metalloporphyrins in polymeric matrices, micelles, and vesicles. VI. Hydrophobic and hydrophilic derivatives of 3,8-diformyldeuteroporphyrin dimethyl ester and their interaction with vesicles

AU Fuhrhop, Juergen Hinrich; Lehmann, Thomas

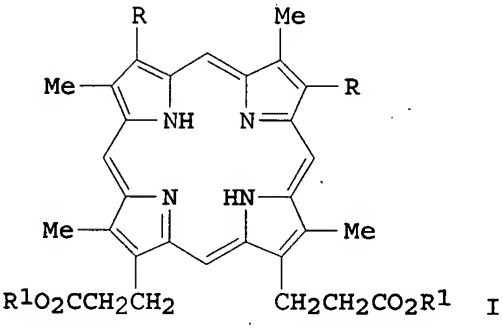
CS Inst. Org. Chem., Freie Univ. Berlin, Berlin, 1000/33, Fed. Rep. Ger.

SO Liebigs Annalen der Chemie (**1984**), (6), 1057-67
CODEN: LACHDL; ISSN: 0170-2041

DT Journal

LA English

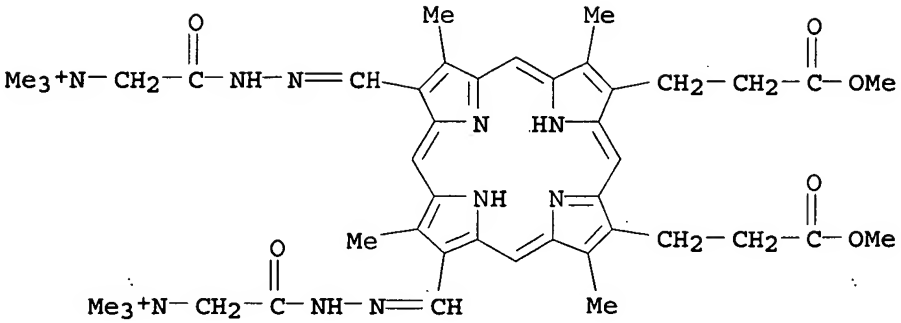
GI



I

AB 3,8-Diformyldeuteroporphyrin di-Me ester (I, R = CHO, R1 = Me) was obtained by ozonization of I (R = vinyl, R1 = Me). Derivs. I [R = CHO, CH(OMe)2, CH:NOH, cyano, CH:C(CO2Me)2 CH:C(CO2H)2, CH:NC6H4NH2-4, CH2NHC6H4NH2-4, CH2NHC6H4N[(CH2)15Me]2-4, CH:NNHCOCH2N+Me3Cl-] have been prepared; they are either hydrophobic, or bear hydrophilic substituents in the northern hemisphere of the porphyrin ligand or on both sides. The porphyrins have been dissolved in aqueous media containing vesicles with electroneutral, -neg., or -pos. surface **charges**. The localization of the dissolved porphyrin chromophore was determined spectroscopically after reaction of the central porphyrin N atoms or of

peripheral substituents with water-soluble acids or metal ions.
CC 26-7 (Biomolecules and Their Synthetic Analogs)
Section cross-reference(s): 22
ST deuteroporphyrin hydrophilic hydrophobic vesicle; formyldeuteroporphyrin hydrophilic hydrophobic vesicle
IT Emulsions
(diformyldeuteroporphyrin derivative interaction with)
IT 5522-66-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(ozonization of)
IT 91360-36-0P 91360-37-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and complexation of, with zinc)
IT 91360-35-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and dehydration of)
IT 91608-75-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and fluorescence quenching of)
IT 91360-32-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydrolysis of)
IT **91360-42-8P**
RL: RCT (Reactant); SPN (Synthetic preparation); **PREP (Preparation)**; RACT (Reactant or reagent)
(preparation and protonation of)
IT 91360-38-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reduction of)
IT 91360-40-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and saponification of)
IT 15341-25-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and substitution reactions of)
IT 7253-86-3P 60185-98-0P 91360-33-7P 91360-34-8P 91360-39-3P 91360-41-7P 91365-11-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
IT 106-50-3, reactions 85074-70-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with diformyldeuteroporphyrin)
IT **91360-42-8P**
RL: RCT (Reactant); SPN (Synthetic preparation); **PREP (Preparation)**; RACT (Reactant or reagent)
(preparation and protonation of)
RN 91360-42-8 HCAPLUS
CN Ethanaminium, 2,2'-[[13,17-bis(3-methoxy-3-oxopropyl)-3,8,12,18-tetramethyl-21H,23H-porphine-2,7-diyl]bis(methylidyne-1-hydrazinyl-2-ylidene)]bis[N,N,N-trimethyl-2-oxo-, dichloride (9CI) (CA INDEX NAME)

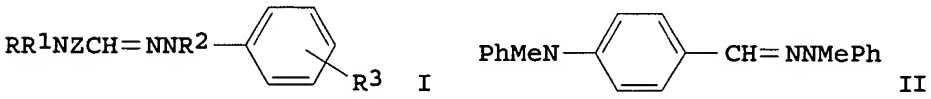


●2 Cl⁻

L66 ANSWER 24 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 1983:594620 HCAPLUS
DN 99:194620
TI Phenylhydrazones and their use
IN Neumann, Peter; Etzbach, Karl Heinz; Eilingsfeld, Heinz; Hoffmann, Gerhard
PA BASF A.-G. , Fed. Rep. Ger.
SO Ger. Offen., 26 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

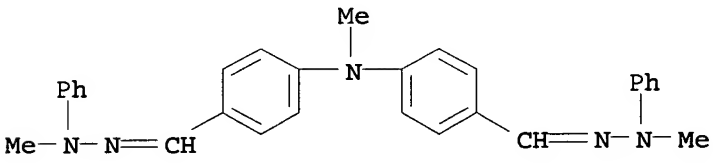
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3201202	A1	19830728	DE 1982-3201202	19820116 <--
	EP 84147	A2	19830727	EP 1982-111818	19821220 <--
	EP 84147	A3	19840905		
	EP 84147	B1	19870527		
	R: CH, DE, FR, GB, IT, LI				
	US 4465857	A	19840814	US 1982-454281	19821229 <--
	JP 58131954	A	19830806	JP 1983-2354	19830112 <--
	JP 03056594	B	19910828		
PRAI	DE 1982-3201202	A	19820116 <--		

OS MARPAT 99:194620
GI

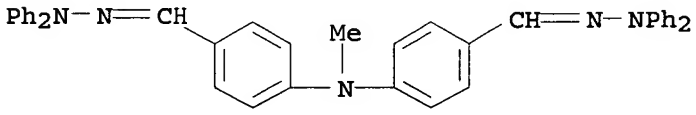


AB I [Z = (un)substituted phenylene or naphthalene; R = H, C1-4 alkyl, aryl; R1 = aryl; R2 = H, C1-4 alkyl, aryl; R3 = H, halo, or C1-4 alkyl or alkoxy] were prepared and used as **charge** carriers in electrophotog. Thus, 4-PhMeNC6H4CHO was treated with PhMeNNH2 in N-methylpyrrolidone to give II.
IC C07C109-16; G03G005-06
CC 25-15 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
Section cross-reference(s): 74

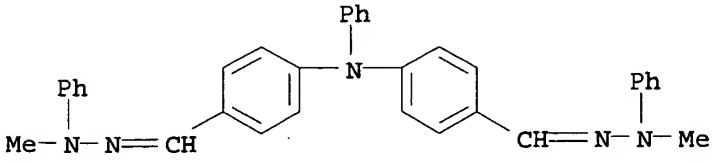
ST arom hydrazone electrophotog
IT Photography, electro-
(aminobenzaldehyde arylhydrazones for use as **charge** carriers in)
IT 82532-74-9P 82532-76-1P 87755-83-7P 87755-84-8P 87755-85-9P
87755-86-0P 87755-87-1P **87755-88-2P 87755-89-3P**
87755-90-6P 87755-91-7P
RL: SPN (Synthetic preparation); **PREP (Preparation)**
(preparation of, as **charge** carrier for use in electrophotog.)
IT 100-63-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with (diphenylamino)benzaldehyde)
IT 530-50-7 618-40-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with aminobenzaldehydes)
IT 4181-05-9 29377-71-7 53566-95-3 55489-38-8 87755-82-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with arylhydrazines)
IT **87755-88-2P 87755-89-3P 87755-90-6P**
87755-91-7P
RL: SPN (Synthetic preparation); **PREP (Preparation)**
(preparation of, as **charge** carrier for use in electrophotog.)
RN 87755-88-2 HCAPLUS
CN Benzaldehyde, 4,4'-(methylimino)bis-, bis(methylphenylhydrazone) (9CI) (CA INDEX NAME)



RN 87755-89-3 HCAPLUS
CN Benzaldehyde, 4,4'-(methylimino)bis-, bis(diphenylhydrazone) (9CI) (CA INDEX NAME)

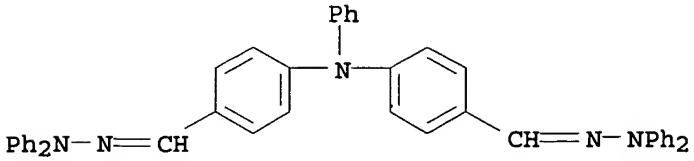


RN 87755-90-6 HCAPLUS
CN Benzaldehyde, 4,4'-(phenylimino)bis-, bis(methylphenylhydrazone) (9CI) (CA INDEX NAME)



RN 87755-91-7 HCAPLUS

CN Benzaldehyde, 4,4'-(phenylimino)bis-, bis(diphenylhydrazone) (9CI) (CA INDEX NAME)



L66 ANSWER 25 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 1968:486882 HCAPLUS
DN 69:86882
TI New, potentially antiviral thiosemicarbazones, 4-oxo-2-thiazolinyl-2-hydrazones and thiazolidin-4-ones
AU Buu-Hoi, N. P.; Saint-Ruf, G.; Perche, J. C.; Bourgeade, J. C.
CS Inst. Chim. Subst. Natur., C.N.R.S., Gif-sur-Yvette, Fr.
SO Chimica Therapeutica (**1968**), 3(2), 110-15
CODEN: CHTPBA; ISSN: 0009-4374
DT Journal
LA French
GI For diagram(s), see printed CA Issue.
AB Thiosemicarbazones (I), 4-oxo-Δ2-thiazolin-2-ylhydrazones (II), and thiazolidin-4-ones were synthesized from heterocyclic aldehydes and ketones, especially isatins, and showed antiviral properties towards DNA or RNA-viruses in tissue cultures. 1-(N-Dialkylaminomethyl)isatins were also examined for antiviral activity. The dimethylisatin starting materials were prepared by acetylation of N-acetylated phenothiazine. I were prepared by refluxing the appropriate aldehyde on ketone, in EtOH, 3-6 hrs., with a slight excess of thiosemicarbazide, in the presence of AcOH. The precipitate obtained was dried, washed with aqueous EtOH and recrysted., giving a product which tended to decompose on melting. II were prepared by refluxing the appropriate I in EtOH with excess ClCH2CO2H and NaOAc. The precipitate was dried, washed with EtOH and recrystd., usually from AcOH. 5,6-Dimethyl-hydroxymethylisatin (III) was prepared by refluxing 15 g. 5,6-dimethylisatin in 1500 cc. H2O containing 25 cc. 32% HCHO and filtering hot at the start of precipitation The filtrate was cooled, dried and recrystd. from MeOH to give an orange-yellow product m. 172°. N-(dipropylaminomethyl)-isatin m. 54°; N-dicyclohexylaminomethylisatin m. 168°; N-(butylaminomethyl)isatin m. 59°; 5,6-dimethyl-N-(piperidinomethyl)isatin m. 133°; and 5,6-dimethyl-N-(morpholinomethyl)-isatin, m. 178°, were similarly prepared The Schiff base N-(9-ethylcarbazol-3-yl)methylenaniline, m. 130°, was prepared and treated with HSCH2CO2H in C6H6 to give 2-(9-ethylcarbazol-3-yl)-3-phenyl-4-thiazolidinone (IV), m. 195°; 2-(9-ethylcarbazol-3-yl)-3-(2-naphthyl)-4-thiazolidinone, m. 282°, was similarly prepared from β-N-(9-ethylcarbazol-3-yl)methylenenaphthylamine, m. 70°; 3-anilino-2-(9-ethylcarbazol-3-yl)thiazolidinone, m. 185°, was prepared from 9-ethyl-3-formylcarbazole; its β-naphthylhydrazone, m. 178°; gave β,3-naphthylamino-2-(9-ethylcarbazol-3-yl)-4-thiazolidinone, m. 245-6°. 17 references.
CC 28 (Heterocyclic Compounds (More Than One Hetero Atom))
ST carbazoles; thiazolidinones; isatins; indolines; naphthyl heterocycles; antiviral semicarbazones heterocycles; semicarbazones heterocycles antiviral; heterocycles semicarbazones antiviral
IT Virucides

(4-thiazolidinone, 2-thiazolin-4-one, and thiosemicarbazone derivs. as)

IT 3525-74-4P 3608-81-9P 17765-80-9P 17765-85-4P 17765-89-8P
19850-07-8P 19850-08-9P 19850-09-0P 19850-10-3P 19850-55-6P
19850-56-7P 19850-57-8P 19850-58-9P 19850-59-0P 19850-60-3P
19850-61-4P 19850-71-6P 19850-72-7P 19850-73-8P 19850-74-9P
19850-75-0P **19850-76-1P** 19850-77-2P 19989-30-1P
20834-70-2P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); **PREP (Preparation)**
(preparation and virucidal activity of)

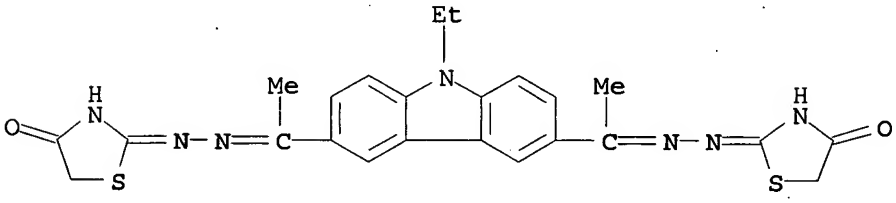
IT 4553-11-1P 17765-84-3P 17765-87-6P 17765-88-7P 19850-44-3P
19850-47-6P 19850-48-7P 19850-49-8P 19850-50-1P 19850-51-2P
19850-53-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and virucidal properties of)

IT 19850-04-5P 19850-05-6P 19850-06-7P 19850-11-4P 19850-34-1P
19850-35-2P 19850-65-8P 19850-67-0P 19850-68-1P 19850-69-2P
19850-70-5P 19850-78-3P 19850-79-4P 19850-80-7P 19850-81-8P
19850-82-9P 19850-83-0P 20976-97-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

IT **19850-76-1P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); **PREP (Preparation)**
(preparation and virucidal activity of)

RN 19850-76-1 HCAPLUS

CN Carbazole, 3,6-diacetyl-9-ethyl-, bis[(4-oxo-2-thiazolin-2-yl)hydrazone] (8CI) (CA INDEX NAME)



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